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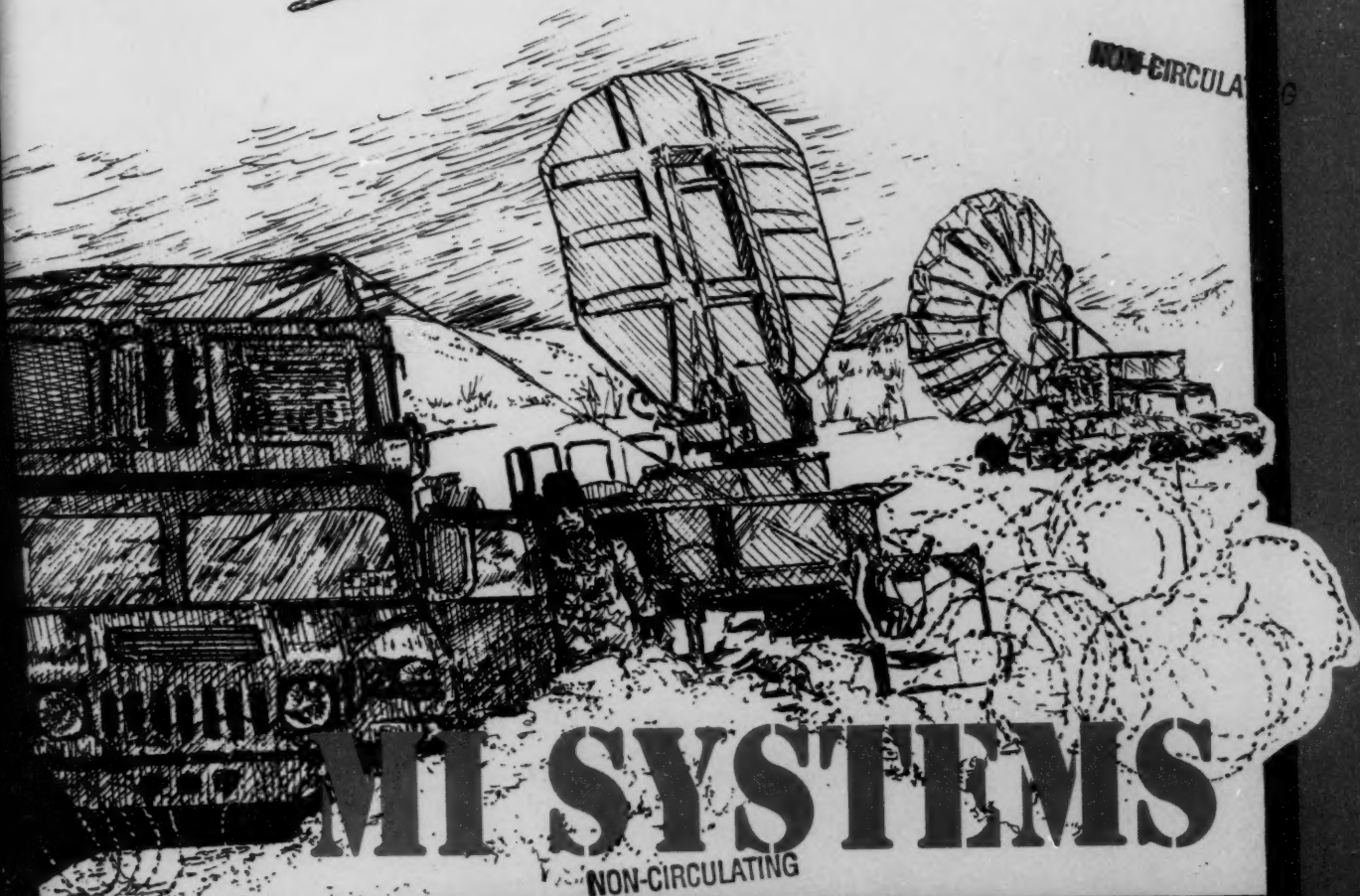
PROFESSIONAL BULLETIN

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MI SYSTEMS

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FROM THE EDITOR

Military Intelligence

Greetings! Welcome once again to the latest edition of *Military Intelligence Professional Bulletin*. Our focus this quarter is "MI Systems." We highlight some of the major "intel hardware" already functioning or scheduled to appear in the field. Lieutenant Colonels Vic Rosello and Barbara Fast submitted outstanding articles pertinent to mentoring and counseling in the MI Corps. We have also included a handy pullout section of hard-to-find phone numbers for major MI units worldwide, as well as a map depicting current MI unit locations. You will also find a handy reference library chart for the brigade and battalion level S2.

I had the opportunity to attend rotations at the National Training Center and the Joint Readiness Training Center to observe MI soldiers and doctrine in action. I witnessed the amount of training and hard work it takes to successfully support the Warfighter. An upcoming issue of *MIPB* is going to focus on tactical MI and how we train at Division level and below. I'm asking that you, the reader, submit articles on how you train your soldiers to do their jobs, from the Low-Level Voice Intercept Team to the Brigade S2 shop. More specifically, I'd like to see crew drills, tactical SOPs and training strategies.

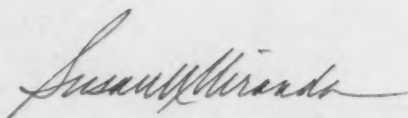
If you attended the 1996 Worldwide CSM/SGM G2 Conference and did not receive your copy of the presentation on videotape or computer disk, please contact SGM "Bo" Long, G3 SGM, at DSN 879-5774 or commercial (520) 538-5774.

Our Letters to the Editor and Book Review departments have not fallen to the wayside. Issues lately have been pressed for space due to timely and relevant articles concerning MI trends and issues. Keep those reviews and letters coming—we enjoy hearing from the "field." We will try to incorporate these departments into the October-December 1996 issue.

You may write about any topic that may be of interest to our readers. We always welcome articles from our sister Services, too. Upcoming issues will cover—

- ☐ Bosnia and topics relating to Operation JOINT ENDEAVOR.
- ☐ Information: operations, warfare, and open source.
- ☐ Tactical-level unit training, crew drills, unit SOPs, "how to" tips.

We would like photos, even without articles. Be sure to include name, address and photographer's full name. If you like, you may caption the photo with names of persons or systems depicted.



Writers of the Quarter

MIPB is pleased to announce that Lieutenant Colonel Kenneth H. Boll, Jr., and Major Jeffrey S. Holachek are our **Writers of the Quarter** (July-September 1996) for the article, "Force Projection Intelligence: A Year In Review." Congratulations to Lieutenant Colonel Boll and Major Holachek and thanks to all of our authors for their great articles, book reviews, and letters to the editor. It is contributions like yours that make *MIPB* the professional forum for military intelligence professionals.

How to Submit an Article

1. Select a relevant topic of interest to the military intelligence community.
 2. Write an outline to organize your work. Put the bottom line up front and write clear, concise introduction and conclusion paragraphs.
 3. Follow proper rules of grammar. Consult **DA Pamphlet 600-67** or William A. McIntosh's **Guide to Effective Writing**, if necessary.
 4. Maintain the active voice as much as possible. Write "Congress cut the budget" rather than "the budget was cut by Congress." (See **DA Pamphlet 600-67, Effective Writing for Army Leaders**, paragraph 3-2,b[1].)
 5. Send the article to Commander, USAIC&FH, ATTN: ATZS-TDL-B, Fort Huachuca, AZ 85613-6000. Please include with your article—
 - ☐ Pictures, graphics, and crests with an adequate description, and photographer credits. (We can return photos if so requested.)
 - ☐ A computer diskette with the article in Word Perfect, Microsoft Word or ASCII. Also any graphics files, separated from the text.
 - ☐ A short biography with the full names of all authors of the article. The biography should include each author's current duty position, other related assignments, civilian degrees, and advanced military education (CGSC, War College, SAMS, MSSJ, SEIP, PGIP). (Tell us if we can print your telephone number and E-mail address with the biography.)
 - ☐ A cover letter with work, home, and E-mail addresses and telephone numbers, stating your wish to have the article published.
 - ☐ A release by your local security office to ensure your article is unclassified, nonsensitive, and releasable to the public.
 6. Remember, content is the most important part of your article. When in doubt, **send us your article**—we can work out the details.
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Military Intelligence

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STAFF:

Commanding General

Major General Charles W. Thomas

Director of Operations, Training, and Doctrine

Colonel Robert C. White, Jr.

Editor

Captain Susan M. Miranda

Associate Editor

Elizabeth A. McGovern

Art Director

Private First Class Andy M. Hobbs

Graphics Specialist

Kazuko Klever

Marvin H. Marcroft

Administration

Cruz M. Martinez

Purpose: The U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH) publishes the *Military Intelligence Professional Bulletin* quarterly under provisions of AR 25-30 and the TRADOC Professional Bulletin policy letter. This bulletin disseminates material designed to keep individuals knowledgeable of past, current, and emerging concepts, doctrine, materiel, training, and professional developments within the Military Intelligence Corps.

Submissions: Send manuscripts, letters to the editor, photographs, and inquiries to: Commander, USAIC&FH, ATTN: ATZS-TDL-B, Fort Huachuca, AZ 85613-6000. For further information, phone (520) 538-1005 or DSN 879-1005.

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Official:

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By Order of the
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DENNIS J. REIMER
General, United States Army
Chief of Staff

Joel B. Hudson
Acting Administrative Assistant
to the Secretary of the Army

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VANTAGE POINT

by Major General Charles W. Thomas

This April we held our annual G2/Commanders Conference at Fort Huachuca, Arizona. The conference provided an opportunity for exchanging ideas on current developments, activities, and concerns across the Military Intelligence (MI) Corps. We were fortunate to have representation from across Army intelligence including Lieutenant General (LTG) Paul Menoher, Deputy Chief of Staff for Intelligence, and several other MI general officers. Additionally, LTG Don Holder, Commander, Combined Arms Center, spoke to the conference and provided a Combat Commander's perspective on the major issues with which we were grappling. Because of the obvious MI community interest, Colonels Ron Carter, DCSINT, USAREUR, and Joe Green, Commander, 205th MI Brigade, gave updates on intelligence operations supporting Operation JOINT ENDEAVOR in Bosnia. I feel that the conference was one of the most productive in recent years. These are some key issues that came to light—

Training

We focused this year's conference on training issues. Of principal concern was new systems training, especially the All-Source Analysis System (ASAS). By implementing a new training strategy at the Intel Center we are trying to produce a more "ASAS proficient" officer, NCO, and soldier. However, each command, with its unique challenges, modified architecture, and skilled professionals plays a role in the ultimate success or failure of our battlefield operating system (BOS). Much of that success is dependent on ASAS, our flagship system. We want to, as part of the greater intel team, incorporate the challenges met and good ideas generated from the commands into our training strategies. Here at Fort Huachuca, we recognize that, as the proponent for training and doctrine of the BOS, we are ultimately responsible for concept, structure, equipment and requirements development and fielding, and coordination of efforts across the force. This was our message to those attending the conference. We do not want to stifle good ideas or initiative, merely harness it for the greater good of MI.

New Systems

Each of the MI TRADOC System Managers (TSMs) addressed the conference attendees. Updates on capabilities, limitations, and new developments for the systems were provided. Much interest centered on the Unmanned Aerial Vehicle (UAV) Program. Since the demise of the Hunter system,

there has been concern over which UAV platform would absorb the division/corps mission. It is agreed that UAV support is needed at all levels from brigade through theater, though the specific platform may differ. Theater-level support will be provided by the Air Force-owned Predator UAV (medium altitude endurance). Our plan is to access it for Army use through Forward Control Elements (FCEs) that will be in place at division and corps. A joint Tactical-variant UAV is scheduled for testing to provide support at the brigade level. Fortunately, the operational requirements set for the Tactical-variant offer near-Hunter capability (in range, endurance, control, collection suite) and help to bridge the gap between brigade-level support and Air Force-controlled, theater-allocated Predator systems. Related to the discussion of UAV support is the health of the 96U (UAV Operator) military occupational specialty (MOS). Rest assured that, in time, 96U will be in good shape. The UAV is recognized throughout Army leadership as critical to our architecture for both targeting and battle damage assessment. What needs to happen first is the fielding of a well-tested and trust-worthy system that is capable, durable, and proven. Regardless of the type of system ultimately selected, a soldier operator/maintainer will be needed. MOS 96Us, your future is bright!

MI Force Concerns

We are concerned with the "overgrading" of our enlisted MOSs. The Vice Chief of Staff of the Army has directed that we bring our MOSs into compliance with structure guidelines. With nearly every MI MOS over the 47-percent NCO-ratio mandate, we are in the "hot seat" to realign our MOSs. This will be a challenge for commanders. Many of our quality soldiers will be frustrated by slowed promotion opportunity over the next few years. We must do our best to convince them to stay the course and wait out the various programs that will help bring us in line. With natural attrition (retirement, expiration of term of service), quality management programs, early retirements, and voluntary separations, we should be able to right ourselves within four years. Ultimately, the MI force will benefit in the long run; those who wait it out will reap the rewards.

The 97G MOS (Multidiscipline Counterintelligence Analyst) is another MI force issue. The MOS is very small and badly overgraded. After consulting MI leaders across the force, we are considering eliminating the MOS. The functions of MDCI Analysis may be integrated into other MOSs and an addi-

tional skill identifier (ASI) awarded to those already trained. For some units that have a greater reliance on the skills of the 97G, losing the MOS could pose problems. I want to emphasize that we do not want to eliminate the function or training. The fact that the soldiers in the MOS are frequently misused and are not being provided effective career development, is why we are concerned.

What I have just discussed highlights the state of the MI Corps today. These topics are just the tip of the iceberg. The leadership of MI is dedicated to working together to overcome problems and still

provide the support combat commanders require. We work collectively, crossing echelons and ranks to get the best solutions to challenges. While we have problems, the fact is, our corps is better than ever. MI is respected throughout the Army primarily because of your hard work. I appreciate your dedication and perseverance as you take on as you continue to meet and exceed ever-increasing mission requirements with often diminishing resources. The Intel Center is here to help. Let me know if there is something we can do for you.

ALWAYS OUT FRONT!

CSM FORUM

by Command Sergeant Major Randolph Hollingsworth

"It is our belief that the Army inculcates in its soldiers a sense of purpose, loyalty, discipline, dedication, and work ethic—for these are our values."
—General Maxwell Reid Thurman

In this issue, I am addressing professional development and mentoring in the Noncommissioned Officer (NCO) Corps. Command Sergeant Major (CSM) Francis C. Manley of the 704th Military Intelligence (MI) Brigade, Fort Meade, Maryland, contributed the second portion of this article. He emphasizes the NCO's role as the Army's trainer and advocates using the NCO Education System (NCOES) to train the trainer.

Professional Development and Mentoring

When do we stop mentoring our soldiers? When do we stop developing our junior and senior NCOs? Is there a time when a sergeant first class or master sergeant no longer needs training? Should we, as senior NCOs, think only of our own futures and not the future of the NCO Corps, the Army, our families, and the United States of America? When can we as leaders say, "I have done my fair share?" The answer to all these questions is "Never!"

We must always remember that regardless of the rank of ourselves or our subordinates, we still are and always will be soldiers. That is why it is important to remember that mentoring is not only for the sergeant, but for the sergeant major and command sergeant major as well. Mentoring and training our soldiers go hand in hand.

The hands-on training our specialists must perform to standard is the same training that all senior NCOs need to perform. All soldiers need to do common task training, perform flawless drill and ceremony, lead physical training, ensure preventive maintenance checks and services on equipment is performed, and execute our individual mission,

whatever that may be. We, as leaders, devote much time preparing our soldiers for Soldier of the Month, and NCO of the Quarter boards; we need to spend just as much time with NCOs whose records are going before a Department of the Army promotion board.

By now someone is asking, "What is Hollingsworth trying to say?" The answer to that question is that we need to take a more active role in giving our soldiers guidance when they are preparing themselves to rise to the next level in their career. Sometimes I hear senior NCOs say things like, "All sergeants first class should know how to check their records."

I know if First Sergeant Jimmy Sheppard or Command Sergeant Major John Castro had felt the same way, I would not have made master sergeant or sergeant major. A portion of their mentorship to me was taking the time to inspect my official photo and go over my **DA Form 2A, Personnel Qualification Record Part I**, and **DA Form 2-1, Personnel Qualification Record Part II**, with me. They did not do this just for me; they did it for every soldier in their unit. Their personal goals, as senior NCOs, was to have every qualified soldier in their respective units selected for promotion.

While serving as a member of the 1994 Master Sergeant Selection Board, I was amazed that some NCOs had not even signed their personnel qualification records! There was no way to tell if some NCOs had even looked at their records. The following areas could make the difference between being considered and being selected for promotion and need to be emphasized to our NCOs—

Photographs. All soldiers must have a current DA photo, yet I still find soldiers with old photos in their personnel file. A photograph should reflect the NCO's present status, including rank, current assignment, awards, and decorations. The photograph

and the height-weight data on NCO Evaluation Reports (NCOERs) go hand in hand; one should support the other.

Records Maintenance. It is the responsibility of all individual NCOs to update and maintain their records. Senior NCOs must teach their subordinates to maintain their records. Some NCOs think that if their DA Form 2-1 looks "pretty" that is all that counts. They fail to realize that the DA Form 2-1 provides promotion boards with vital information on the NCO's assignments, education, military schools, and other accomplishments. In fact, while the DA Form 2A might show that the NCO has no post-high school civilian education (based on the one-, two-, three-, and four-year degree requirements), the DA Form 2-1 can more accurately show that the NCO has anywhere from three baccalaureate hours to a masters degree or doctorate.

Official Military Personnel File (OMPF). NCOs should use the Interactive Voice Response System to obtain their OMPF early enough to ensure its accuracy before a board meets. Also check that the OMPF contains the other soldier documents and NCOERs that it should. After individual soldiers review their OMPFs, their first sergeants, sergeants major, and command sergeants major should review the OMPF with the NCOs. Take advantage of anyone who has been a member of a DA promotion board; ask that person to review your file.

Correspondence to the President of the Board. NCOs should carefully consider their reasons before sending correspondence to the president of a board. Letters to the President of the Board must deal only with present information that is not in the OMPF, for example: awards, recently completed NCOERs, and induction into the Audie Murphy Club. Last, but not least, have someone check for errors. Too often I noticed letters submitted in improper format, with poor spelling and grammar, inappropriately boasting of the NCO's value, contribution, and future potential. A poorly written, boastful letter does more harm than good.

Former Board Member. Officers, command sergeants major, sergeants major, and panel NCOs must tell their officers and NCOs how promotion boards work. We must stop our NCOs from thinking that promotion boards are "hit and miss." Through NCO development programs, former board members can give NCOs the correct information they need to keep themselves competitive for promotions. The experience that one gains from sitting on a DA promotion board is worth a million dollars when it comes to training and mentoring. Please remember that mentoring and training does not stop at a certain rank; it is an ongoing process like intelligence preparation of the battlefield.

ALWAYS OUT FRONT!

Train-the-Trainer: A Lost Art, A New Opportunity

Some years ago, a decision was made at Army level to share the load of soldier training. The U.S. Army Training and Doctrine Command (TRADOC) received the job of training initial or entry-level military occupational specialty (MOS) skills to a novice level of competency. Other skill enhancement and additional MOS enrichment training was also left in TRADOC. User units were left to train soldiers to proficiency, using in-unit, on-site assets.

Today's reality is that every NCO in the unit bears a tremendous training load. Sergeants at every level must conduct training in Army-directed subjects, basic survivability skills, and site-specific skills driven by local equipment and taskings. In addition, the same NCOs must ensure soldierization. They must also pre-train their soldiers for those often tough classes at the Primary Leadership Development Course (PLDC) and other NCOES courses. Every one of these training responsibilities competes with, and is often conducted at, the expense of soldier proficiency in the skills needed to accomplish the intelligence mission.

In a bygone era, a soldier's first learning experience in how to be an NCO occurred in the Basic Leadership Course, usually taught at the soldier's installation. The major core element of that course was "Methods of Instruction" (MOI). This was every potential NCO's introduction to proficiency requirements for trainers. This is where "Train-the-Trainers" began. The second step was taken in the NCO Academy. The primary goal at this level was achieving initial proficiency as a trainer. Introduction of all the topics taught in the academy was in the context of—

- ☐ What are the facts involved?
- ☐ What are the complexities of understanding and using these facts?
- ☐ Introduction, practical use of, and proficiency with effective methods of overcoming learning obstacles, with the end result that the trainees reached "initial proficiency."

Then it all stopped.

Not until the advent of the Basic NCO Course (BNCOC) and the rest of what we now know as NCOES, did NCOs begin to go the rest of the way to effectively reaching proficiency as trainers, capable of independently conducting training. They had finally reached the stage of proficiency; success in the "Train-the-Trainer" process.

In the years since its inception, NCOES for MI soldiers has been drawn away from its earliest success. The MOI is no longer called "MOI." The "how to train soldiers" aspect of NCOES now competes for the NCO's attention with a directed list of topics (common leader skills), MOS primary and intermediate technical skills and, in some cases, former addi-

tional-skill-indicator courseware. NCOs sometimes leave BNCOC and the Advanced NCO Course (AN-COC) having lost sight of their basic NCO responsibility to pass on their knowledge—to be, know, do—as a trainer. Many NCOs never achieve the expertise to effectively train and sustain “Proficiency” in the soldiers that attend their in-unit training. The locally focused, or prioritized training efforts conducted by these less-than-proficient NCOs can wind up institutionalized. With all the inherent conflicting demands in every unit, the common result is soldiers with less than “proficient” skills in those tasks necessary to effectively, optimally achieve the intelligence mission.

There are many effective trainer programs in use in the Army today. The cryptologic community has the “Adjunct Faculty” program. The Defense Language Institute has military language instructors who actually conduct foreign language training in the initial early training environment. These programs have similar qualities of remarkable expertise in specific subject areas. Each of them require the trainer to personally attain, sustain, and then transfer to their students a requisite level of “proficiency.” TRADOC has its own courses designed to bring an NCO to the level of expertise necessary for platform training. This course culminates in the award of skill qualification identifier “H.” The processes, training skills and results of these programs can serve as examples for NCOs conducting in-unit training.

The primary role of the NCO as the Army’s trainer needs reemphasis at every level of NCOES. The concept of using NCOES as the place to “Train the Trainers” and expand technical MI MOS skills needs dusting off. We cannot lose sight of our training roles. When the NCOES sequence begins in the PLDC (grade E-4 promotable), we want the result to be an initially proficient trainer. Reemphasize MOI. Teach the facts and skills by teaching the PLDC stu-

dent how to teach others to the basic competency level.

Move forward in the NCOES process during BNCOC (grades E-5/E-5 promotable) by broadening the MOI perspective. Teach these students to the sustained trainer proficiency level. Give them the tools to plan, prepare, execute, evaluate, and conduct remedial in-unit training. In some technically heavy courses we may want to give these NCOs “Adjunct Faculty” status in specific MOS core course topics. Introduce these NCOs to all the best training tools currently available, then make them the in-unit points of contact for their respective MOS’s adjunct expertise. Address new school materials, solutions and updates to these specific NCOs as the best entry point for quickly improving that decentralized in-unit training.

At the last stage, use ANCOC (grades E-6/E-6 promotable), to teach students how to deal with local conditions and demands by adapting current tools, courseware, electronic connectivity to experts, coaching techniques, and so forth. Broaden adjunct qualifications within the MOS and career management field and give parallel skills (such as IPB for MOS 98C). Broaden mentoring skills. Achieve proficiency as a trainer to the level of being able to teach soldiers how to think.

There is no new formula for success in this article, rather a renewed perspective, and emphasis of the NCO role as the trainer. It is an art that cannot be lost within the MI Corps if we are to be successful in the future.

CSM Manley has served in every enlisted leadership position and has worked as a translator/interpreter in Chinese Mandarin, voice interceptor, cryptanalyst, signals intelligence analyst, and interrogator. He has a bachelor of arts degree in Asian Studies from the University of Maryland. Readers can contact him at (301) 677-0246, DSN 923-0246, and E-mail at 704mib@meade-ams1.army.mil, bdqq16c@prodigy.com, or via manleyf@meade-emh1.army.mil.

Defense Attache System

Are you an Army, active duty, noncommissioned officer (NCO) in the grade of E-5 through E-7 looking for an exciting, challenging and rewarding new career field? According to the Army Attache Management’s Enlisted Assignments Manager, there is no other Army program that provides soldiers the opportunity to live and work in so many different countries and experience so many diverse and unique cultures.

Then consider an assignment with the Defense Attache System (DAS). The DAS is now recruiting only the most qualified NCOs seeking joint service staff assignments within American embassies in more than 80 locations throughout the world. Selected NCOs have the opportunity to represent the United States Army and the Defense Intelligence Agency while serving in diplomatic assignments in Europe, the Americas (North, Central, and South), Africa, the Far East, and the Middle East.

NCOs considering Attache duty must be on active duty, qualify for a TOP SECRET security clearance, have a general technical (GT) score of 120 or higher and a typing score of 40 or more words per minute, and be familiar with the latest personal computer word processors. Soldiers must also test 100 or higher on the Defense Language Aptitude Battery. All family members must be U.S. citizens and meet the medical standards for the country of assignment.

Prerequisites, application procedures, and countries available within the program can be found in **Army Regulation 611-60, Assignment to Army Attache Duty**. For additional information, contact Sergeant First Class Gale at (301) 677-2134 extension 2633 or DSN 923-2134 extension 2633.

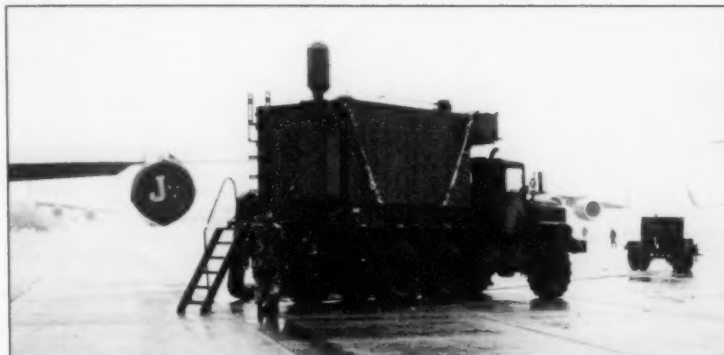
Joint STARS: The Warfighter's Window to the Battlefield

by Lieutenant Colonel
Kevin C. Peterson and Major
Phillip G. Basinger

Training and Doctrine Command (TRADOC) System Manager (TSM) is the Army Proponent for the Joint Surveillance Target Attack Radar System (Joint STARS) Ground Station Module (GSM), which will evolve into the Common Ground Station (CGS), and the Commander's Tactical Terminal (CTT) which will become the Joint Tactical Terminal. This article provides an overview of the systems and their current status.

Joint STARS

Joint STARS is an Army-Air Force system designed to provide near-real-time surveillance intelligence, targeting, and battle management to the land component commander. The system is made to support a corps-size unit. Joint STARS consists of the Air Force-owned E-8 aircraft, a modified Boeing 707 manned by an Air Force and Army aircrew, and what we like to call the "business end of the system," the Ground Station Module (GSM), operated by the Army. The E-8, using its chin-mounted multimode radar, collects moving target indicators



Photos provided by Motorola

The Joint STARS Medium Ground Station Module, AN/TSQ-168.

(MTIs), fixed target indicators (FTIs), and synthetic aperture radar (SAR) imagery and downlinks this to the GSM. GSMs not in the footprint of the aircraft datalink can have another GSM relay the data through a satellite at a reduced data rate using the built-in satellite communications radio.

Once fielded to military intelligence (MI), aviation, and artillery units, the GSM will be the most numerous MI end-item in the Army, located from maneuver brigade up through echelons above corps (EAC). Current fielding plans call for each division to have six GSMs; corps will have seven GSMs (this includes the Armored Cavalry Regiments), and each EAC MI Brigade will

have two. The total planned buy is 20 Air Force aircraft, 95 GSMs for the Army, and 2 GSMs for the Marine Corps.

Currently, three different versions of the GSM (see Figures 1 and 2 for their capabilities and differences) have been fielded. The Joint STARS Common Ground Station (CGS) is a Preplanned Product Improvement of the Block One Light GSM. The system will have expanded interfaces with other systems such as aviation, unmanned aerial vehicles (UAVs) and signals intelligence feeds through the Commander's Tactical Terminal (CTT). In addition to the expanded interfaces, the system will be able to receive secondary imagery from tactical, theater, and national systems. Although originally scheduled to begin fielding at the turn of the century, CGS has been selected as a candidate system for acquisition streamlining. The first CGS may roll off the production line as soon as the second quarter of fiscal year 1998 (2 QTR FY 98).



The Joint STARS Light Ground Station Module, the AN/TSQ-178.

Operation JOINT ENDEAVOR

A composite Joint STARS team recently returned home in April after nearly a 4-month deployment to Europe in support of Operation JOINT ENDEAVOR. The team consisted of members and equip-

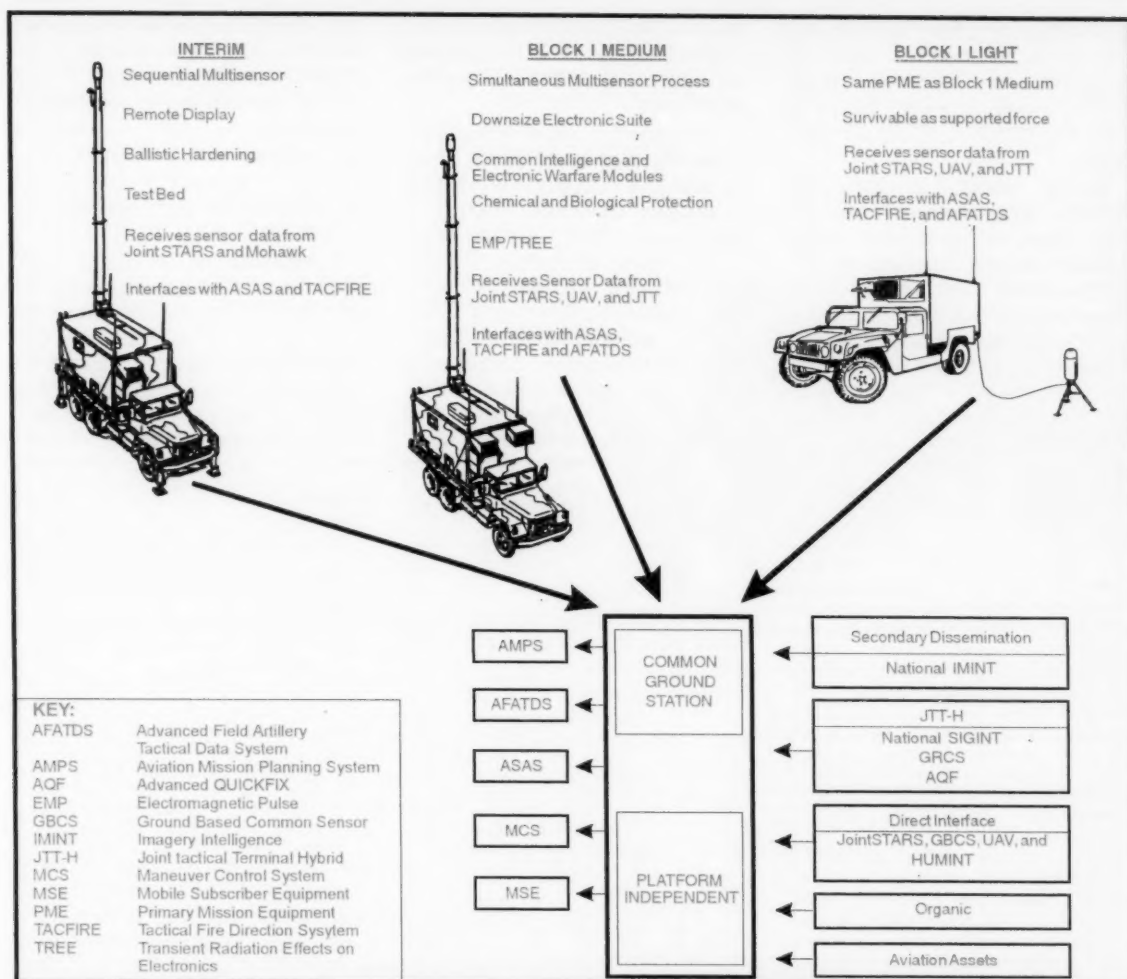


Figure 1. The Joint STARS Ground Station Module Evolutionary Program.

ment from the 303d MI Battalion, Fort Hood, Texas; the 319th MI Battalion, Fort Bragg, North Carolina; the Developmental Test and Training Detachment, 111th MI Brigade, Melbourne, Florida; and the Program Manager (PM) and TSM offices for Joint STARS. General Jouwlan (Supreme Allied Commander, Europe) called the Joint STARS system forward to support the International Force (IFOR)'s deployment into Bosnia. Army members met with their Air Force counterparts to form the 4500th Joint STARS Squadron (Provisional) at Rhein Main Air Base, Germany. With two of the required five aircraft needed to provide 24-hour coverage, the E-8s flew 89 sorties, including 50

consecutively, breaking the DESERT STORM record of 49 in a row.

Of a total of 12 GSMs deployed, 7 were positioned in Italy, Hungary, and Germany, and 5 were within Bosnia itself: 3 were with the 1st Armored Division, and 1 each with the British and French Divisions. The system's employment was primarily in the force protection and peace-treaty-compliance modes, but it supported other missions such as observing mass grave sites for evidence of corpse removal or tampering. The system's deployment to Europe forced a cancellation of the extensive Multi-Service Operational Test and Evaluation

(MOT&E) planned during the same timeframe. However, Joint STARS met many of the test objectives while supporting JOINT ENDEAVOR, and test personnel and data collectors accompanied the operational personnel on the deployment to verify performance.

93d Air Control Wing Activated

While the 4500th Joint STARS Squadron (Provisional) was providing near-real-time intelligence to the IFOR, the 93d Air Control Wing activated at Robins Air Force Base, Georgia, on 29 January 1996. The Wing is an integrated organization consisting of

personnel from the Air Force and the Army. The unit will "ramp up" over eight years increasing in size from 300 personnel in 1996 to an end strength of 2,700 by the year 2004.

During operations, the Joint STARS Army aircrew (three per flight crew) will provide the critical conduit and interface with all deployed GSMs. The aircrew members and staff are assigned to the 297th Operation Battalion of the 513th MI Brigade. An Army officer will fill the Wing's Deputy Operation Group Command position. That officer will present Army is-

ssues and ensure that mission support to GSM is considered during training, exercises, and deployments.

The Wing's initial operational capability date is 2QTR FY 97 after which the system will deploy to support exercises throughout the world. Part of the Joint STARS team will soon be two officers from the Aviation and Artillery Branches. The Army crew with this augmentation will better meet the targeting and situational awareness needs of multiple commanders simultaneously, and do it in a focused manner. Avia-

tion and artillery officers assigned to the Wing will ensure Joint STARS remains forward on support to ground units, while demonstrating the Army's commitment to this vital program.

Commander's Tactical Terminal

Configured as a stand-alone system or as a line replaceable unit, the CTT has been integrated into many new aviation, air defense artillery, fire support, and intelligence systems, including the Joint STARS Medium and Light GSMs (MGSM, LGSM). Depend-

SYSTEM	PRIME MOVER	COMMUNICATIONS	INTERIOR AND CAPABILITIES
Interim Ground Station Module (IGSM) AN/TSQ-132(V)1	5-ton cargo truck and 5-ton support cargo vehicle (M-923 series) with S-679 shelter 100-foot pneumatic mast, front and rear leveling system, and environmental control unit.	2 x AN/VRC-92 (SINCGARS) VHF radios, 1 x AN/VRC-83 UHF radio, 2 x TA/312 field phones 1 x KY-68 (MSE). * MSE and SINCGARS can transmit TACFIRE messages digitally.	2 operator mono-color consoles with menu-driven flat panels, keyboard and trackball, and color and black and white printers. Receives WAS, SS, AP, AC MTI imagery, and SAR imagery from E-8 aircraft. Receives MTI imagery from Mohawk aircraft.
Medium Ground Station Module (MGSM) AN/TSQ-168	5-ton cargo truck and 5-ton support cargo vehicle (M-923 series) with S-751 shelter 30-foot heavy mast, and 2 environmental control units.	2 x AN/VRC-92 (SINCGARS) VHF radios, 1 x AN/VRC-83 UHF radio, 2 x TA/312 field phones 1 x KY-68 (MSE) with fax 1 x 2 channel JTT, 1 x saturn radio (SATCOM) STU-III, and 1 x cellular phone. * MSE and SINCGARS can transmit TACFIRE messages digitally. * Cannot operate while on the move. Has LGSM software.	2 operator consoles (color) with on-screen window type panels, keyboard and trackball, and color and black and white printers. Can call up on-screen digital E-maps, dated data, and JTT icons. Receives WAS, SS, AP, AC SATCOM MTI imagery, and FTI SAR imagery from E-8 aircraft. Receives UAV electro-optical and infrared imagery.
Light Ground Station Module (LGSM) AN/TSQ-178	2 x HMMWVs with shelters, 1 x 30-foot mast on support shelter or ground-mounted tripod, capable of operations on the move.	2 x AN/VRC-92 (SINCGARS) VHF radios, 1 x AN/VRC-83 UHF radio, 2 x TA/312 field phones 1 x KY-68 (MSE) with fax 1 x 2 channel JTT, 1 x saturn radio (SATCOM) STU-III, and 1 x cellular phone. * MSE and SINCGARS can transmit TACFIRE and ASAS messages digitally. * Can receive JointSTARS imagery while on the move.	2 operator consoles (color) with on-screen window type panels, keyboard and trackball, and color and black printers. Can call up on-screen digital E-maps, dated data, and JTT icons. Receives WAS, SS, AP, AC SATCOM MTI imagery, and FTI SAR imagery from E-8 aircraft. Receives UAV electro-optical and infrared imagery.
Common Ground Station (CGS)	2 x HMMWVs with shelters, 1 x 30-foot mast on support shelter or ground-mounted tripod, capable operations on the move.	Unknown-System based on LGSM.	Has same capability as LGSM plus 3-channel JTT, improved SATCOM, aviation interface link, and secondary imagery input through JTT.

Figure 2. Capabilities of the Joint STARS Ground Station Modules.

ing on the version, the CTT accesses (transmit and receive) four broadcast intelligence networks operating at the national or theater level.

Tactical Reconnaissance Intelligence Exchange System (TRIXS) Network. The TRIXS is a line-of-sight (LOS), interactive (transmit-receive), ultrahigh frequency (UHF) network which supports up to five airborne relays and producers:

- Current producers are the Army's Guardrail Common Sensor (GRCS) on board the RC-12 aircraft, and the Air Force Contingency Airborne Reconnaissance System (CARS) on board the U-2.
- Two other producers will be operational in the near term, the Army's Airborne Reconnaissance Low (ARL) on the D-7 aircraft in 1996, and Navy's Storyteller (E-8) in 1997.
- The fifth source has not been determined, but could be Joint STARS, UAV, or another airborne system.

TRIXS transmits messages in near-real-time to up to 250 addressees. The TRIXS operates at the SECRET and sensitive compartmented intelligence (SCI) levels.

Tactical Information Broadcast Service (TIBS). The TIBS is a theater UHF LOS or satellite-interactive network. The TIBS can support up to 10 producers, 50 query nodes, and an unlimited number of receive-only users. The TIBS operates at the SECRET collateral level.

Tactical Receive Equipment (TRAP) Data Distribution System (TDDS), and Tactical Data Information Exchange System-Broadcast (TADIXS-B). The TDDS and TADIXS-B are global UHF satellite broadcasts which can serve an unlimited number of receive-only users. They currently operate at the SECRET level.

There are three CTT configurations. The CTT-1 is a stand-alone, single-channel transmitter and re-

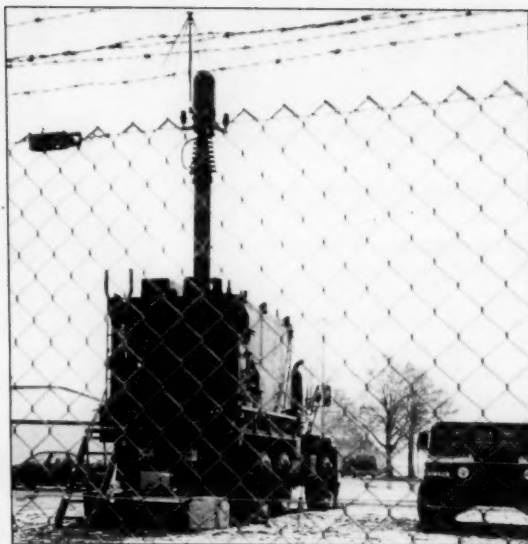
ceiver (full duplex data and half-duplex voice) system which operates either SCI or SECRET collateral in the TRIXS network only. Currently, U.S. Army, Europe, has fielded 7 CTT-1 systems and U.S. Forces Command has 16 CTT-1s.

A component part of a larger system, the CTT-2 is a two-channel receive-only system which can receive any two of the four broadcast networks simultaneously. More than 180 CTT-2s have been fielded to Air Force and Army units. This is the system currently integrated into the LGSMs and MGSMs.

The CTT-3 is a three-channel full duplex transmitter and receiver. It can receive three broadcast intelligence networks simultaneously and adds the capability to transmit and receive secondary imagery. Delivery of the first seven systems will be in June 1996; three of them will be installed in MGSMs in Korea. Total production of the CTT-3 will be 86 CTT-3 transmitter-receivers, with 37 going to the Army, 26 to the Marine Corps, and 16 to the Navy.

The four separate intelligence broadcast networks will eventually combine into a single Integrated Broadcast Service with a single data format (Tactical Digital Information Link -J), and a common family of terminals for the four Services, the Joint Tactical Terminal (JTT). The JTT will eventually replace all the CTTs.

Lieutenant Colonel Kevin Peterson was commissioned in the Army upon graduation from the University of Iowa in 1975. After completing Field Artillery Basic Course, he served as a Reconnaissance and Survey Officer and Fire Direction Offi-



The evolutionary Joint STARS Common Ground Station.

cer with the 1/6th Field Artillery Battalion, XVIII Airborne Corps Artillery. He has held command and staff assignments in both aviation and intelligence units, including Imagery Interpretation Platoon Leader, 218th Military Intelligence Detachment (Airborne); S2 and flight Platoon Leader, 82d Aviation Battalion; Reconnaissance Platoon Leader and Company Executive Officer, 73d Combat Intelligence Company, Adjutant and Commander, Headquarters, Headquarters and Service Company, 2d Military Intelligence Battalion (Aerial Exploitation); Concepts Branch Chief and Concepts and Studies Division Chief, Directorate of Combat Developments, United States Army Intelligence Center; Executive Officer and Operations S3 Officer 1st Military Intelligence Battalion (Aerial Exploitation); Director of Logistics, USAIC&FH, Commander 304 MI Bn and TSM-Joint STARS. He holds a master's degree in Administration from Central Michigan University and is a graduate of the Military Intelligence Advanced Course and the Army Command and General Staff College. Readers can reach the authors at (520) 533-5301/5201 and DSN 821-5301/5201. You can reach Lieutenant Colonel Peterson via E-mail/PROFS at petersok%hual@leav-emh.army.mil.

Major Phil Basinger is currently the Deputy TSM Joint STARS. He has a BA in History from the University of Central Arkansas and a MA in International Relations from University of Southern California. Previous assignments include Brigade Executive Officer, Battalion Executive Officer, and Battalion S3. He recently served as Chief Joint STARS Liaison at the Combined Air Operations Center, Vicenza, Italy, during Joint STARS deployment to Europe for Operation JOINT ENDEAVOR. Major Basinger's E-mail/PROFS address is basingep%hual@leav-emh.army.mil.

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ASAS: New Ways to Leverage Human Analytical Power

by Colonel Theodore G. Chopin

The current and future versions of the All-Source Analysis System (ASAS) may never contain all of the desired functionality identified by the Military Intelligence (MI) Corps as a necessary part of the ASAS. The course of MI doctrinal development, increasingly rapid advances in technology, and MI professionals' different ways of supporting commanders guarantee the continuing reality that we will always be catching up. Success, then, in building and fielding improvements to the current ASAS software and hardware must always be relative to the perception of whether the combat and materiel development communities are doing as well as they are able and expected to do.

This article will not attempt to force the reader to adopt a perception. Instead it will deal with some of the important principles that are emerging as the underpinning to the program's current and future focus and direction. An understanding of these principles should help guide the formulation of the perception. In other words, the ASAS program leadership ought to have some areas of mutual, continued focus in order that they might make the best prioritization decisions.

ASAS RWS

There are four major parts which comprise the ASAS system of systems—

- ☐ All-Source.
- ☐ Single-Source.
- ☐ ASAS Remote Workstation (RWS).
- ☐ Communications.

Of these, two are really more important components of this entire system and should take prece-



Photos provided by author

dence in most resourcing considerations.

For overall ASAS operations, the most important part of the system is the ASAS RWS. This is the part of the total ASAS system that is the primary intelligence presentation device. It is also the tool that provides the majority of the intelligence workstation capability that many MI leaders and soldiers have at their immediate disposal. Also of critical impor-

tance is the fact that this is the MI battlefield functional area (BFA) plug into the Army Battle Command System (ABCS).

The "remote" designation in its name says that this combination of machine and software has been designed for operation outside the Analysis and Control Element (ACE). Whether located at echelons above corps, division, brigade, armored cavalry regiment, separate brigade or battal-

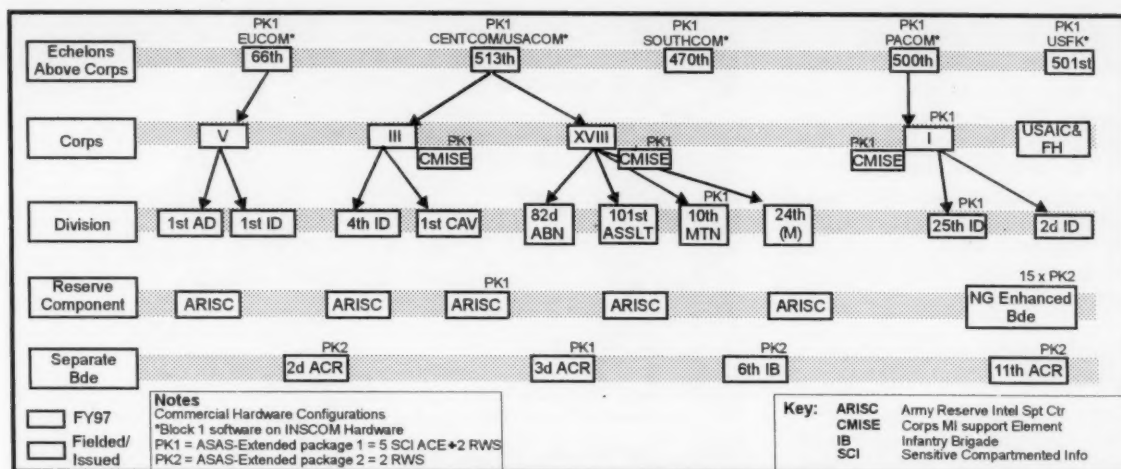


Figure 1. Current ASAS Status and Plan.

ion, this intelligence workstation is key to successful ASAS operations.

At lower echelons, the need for the RWS to contain and manipulate large amounts of data decreases. So, at the battalion level, the paramount need is for the RWS to manage only the limited amount of information necessary to create and present the current relevant enemy picture. The RWS will also provide well-integrated and automatic tools which allow the intelligence operator to accomplish his mission. Both the current fielding of today's RWS (the RWS Version 1 with Warlord software), and the feverish development pace of the next generation RWS aim toward this end. Task Force XXI will receive that RWS. Its designation is ASAS RWS Version 3 (V3).

Following discovery, experimentation, and testing of resident capabilities in this next generation workstation, the next generation fielded ASAS RWS, Version 4, will incorporate these lessons learned. Regardless of which version is in the field, the RWS will remain "the pointed edges of the spear" for the MI Corps' primary weapon system, the ASAS!

ASAS All-Source

The second important part of ASAS is the All-Source functionality in the ACE. This key element

of the system is steering the developmental and operational effort to best leverage the power of the ASAS. Underlying resource allocation decisions at all levels should be the understanding that to leverage the current and future systems' power to the fullest extent possible, the focus must be on getting all available information into the All-Source Correlated Data Base (ASCDB). This is where the most powerful part of the ASAS software resides. The unit that focuses ACE operational effort on getting intelligence collection and preprocessing outputs into the ASCDB can realize the most complete, relevant, and timely intelligence production. The mechanisms and concepts associated with leveraging all this single database's fusion capability are new to our Corps. The principles are complex. The database is a single, multidimensional one.

We are asking all of our analysts and leaders to exercise new dynamic analytical methodology before the data arrives. They must establish inventive and complete normalization definitions, multiple alarm sets, desired coefficients of correlation, required output data-element compression ratios, and many more such seemingly esoteric values. This is becoming a new lexicon of the Army MI Corps. The often improved ASAS Block 1 all-source

software and hardware has these capabilities today. Admittedly, they are not as user-friendly as we would like and as the software will become. This fact, however, is not a valid excuse to avoid its use. The fact is, it performs. The smartest leaders and operators are using its power today.

As the Block II program progresses, additional functionality will be integrated and it will become easier to use. The facilitators for this part of the ASAS to become more useful have been the conversion of the ACE all-source platforms to the DEC Alpha reduced instruction set computing (RISC) machinery, and the outstanding post-deployment, software support work that has been done by the Communications and Electronics Command.

In other words, the all-source capability that is in every ACE today is not the capability that was there a year ago. The speed and completeness with which the software can now operate has made it effective to invest the time and effort needed to really focus on the all-source functionality. MI commanders and G2s are now allowing their operators to get sufficient numbers of weekly hours on their machines—working real and exercise traffic—to be able to establish and maintain proficient operators. Given that opportunity, we can realize actual benefits.

These two parts of the ASAS (the RWS and the ACE system) are key to leveraging its current power. But, of course, they cannot and do not stand alone. Without the single-source functionality and communications gateways in the ACE, the ASAS as a "system of systems" does not function. They are both vitally important too.

Application of Lessons Learned

We continue to move toward new single-source, all-source, remote workstation, and communications software packages, all integrated into a common hardware and software infrastructure. We are beginning to make some of the lessons we have learned in the last few years pay off more fully. The Program Manager Intelligence Fusion will deliver this new capability to all ASAS users. Human-computer interfaces will improve. Software throughout the ABCS will become much more common and intuitive to operate. We will establish new and powerful linkages between processes which will allow operators to make single entries and receive valuable, immediate feedback, allowing the analyst to spend time doing real analysis.

Until now we have primarily focused on getting a capability to the field. Whether it was the original Block I hardware and software, the improved hardware and software, or the Block I software on the ASAS-Extended commercial hardware variant, the first priority was to get something in the hands of our MI Corps. It has provided a limited capability and helped us begin to learn from experience the priorities for the next generation systems. This has been done.

Software Support

A special word on software support is germane to this article. It takes the cooperation of all and considerable resources to continue to be successful. Key to our



Photo provided by author

The Compartmented ASAS Message Processing System provides communications.

future success in making the ASAS better and more interoperable with the other systems on the battlefield, is the requirement to adequately support software after fielding. In many ways, the fielding of the ASAS across the force has defined the new paradigm in this vitally important area. This new paradigm is full-time, on-site software support led by a robust BFA software engineering structure. No central software laboratory will ever be able to replicate all the interoperability requirements of our force. It is a fact that each unit is different and has different software interoperability requirements. It is therefore absolutely essential that software support be available on-site for a "system of systems" as complicated as ABCS and the ASAS.

Not all share this view! More than any other threat to our continued short-term success is the move to limit this software support function. It is this author's opinion that we must all understand and stay engaged in this important dialogue over the coming years if we are to maximize our success in digitizing our Army.

Outlook

Now, within resources provided, we will move on to provide more of the critical operational capability required by MI warriors to answer increasingly demanding questions. Using the established software development and support infrastructure, we can main-

tain and enhance the horizontal interoperability of the current ASAS while building interoperability within the ABCS and Global Command and Control System (GCCS) as they are fielded. It is and will continue to be the Training and Doctrine Command (TRADOC) System Manager's job to coordinate all ASAS efforts to capture new requirements and drive improvements in the current system.

There is no one magic solution for the intelligence soldier. ASAS will not do it all. The proficiency levels demanded of us and all our people in communications, collection, preprocessing, processing, and fusion are large and growing.

The age of the information warrior is only beginning to be understood and dealt with in a meaningful way. With cooperation, maintenance of proficiency and training, and the provision of reasonable funding, we will continue to make great strides.

Colonel Chopin has been the TRADOC System Manager, ASAS, since 1992. He has had a varied career including a number of command and staff positions at field stations in Europe and an assignment at the National Security Agency. Colonel Chopin is an Army War College graduate. He has a bachelor degree in Business Administration from Georgia State University and a master of science degree in Systems Management from the University of Southern California. Readers can reach Colonel Chopin at (520) 533-3504 and DSN 821-3504. For additional information, visit TSM ASAS on the World Wide Web at <http://www.tsmasas.army.mil>.

ASAS in Operation: Joint Warfighter Interoperability Demonstration

by Master Sergeant
Michael F. Fallon

The Joint Warfighter Interoperability Demonstration (JWID) allows the Services to create a worldwide, technologically state-of-the-art architecture and displays selected critical automated capabilities and interoperability to support the commander of the joint task force (JTF, CJTF). The host for the 1995 demonstration was the Marine Air Ground Task Force (MAGTF) Command, Control, Communications, Computers, and Intelligence (C⁴I) Battle Lab under the Marine Corps Tactical Systems Support Activity (MCTSSA). JWID 1995 ran from 18 to 29 September 1995 at Camp Pendleton, California. The All-Source Analysis System (ASAS) played an integral part in the demonstration.

Demonstration Objective

During the JWID, the Army was in a support role to the JTF Marine Commander. The Army's mission was to provide the CJTF with detailed all-source intelligence, imagery products, and decision-support information. To accomplish this mission, the Army deployed four elements linked through the "in-place" communications architecture. The first two were basic structural elements and the latter two were specifically for the JWID:

- ☐ An analysis and control element (ACE) to support the CJTF.
- ☐ The deployable intelligence support element (DISE) to support the Army Forces Forward (ARFOR FWD) at Camp Pendleton.
- ☐ The Army provided an ACE (in sanctuary) at McLean, Virginia, to support the simulated ARFOR 1st Airborne Division.

- ☐ A force projection combat brigade (forward) at Fort Gordon, Georgia. (See Figure 1 for a depiction of the JWID 1995 organizational structure.)

Exercise Procedure

The mission of the ACE and the ASAS was to provide the common enemy ground intelligence picture to all the commanders. The Army Commander decided to employ a baseline ASAS in a doctrinal configuration to demonstrate the actual capabilities of ASAS. Additionally, this decision allowed the ASAS operators and developers to focus on identifying specific ways to enhance the current system's interoperability. The path to success-producing products for the CJTF rested on ASAS capabilities and information-engineering concepts.

The ACE at the CJTF (see Figure 2) was the critical hub for intelligence fusion and analysis. The ACE mission was to build a common enemy situation derived from an all-source correlated da-

tabase. To support the mission, the ACE employed the ASAS in an extended configuration. This included—

- ☐ Two all-source (DEC Alpha) workstations.
- ☐ Two single-source (Sun) workstations.
- ☐ The CGS-100 which provided a communications interface.

This hardware is part of the fielded baseline equipment. We added a Binocular workstation (National Security Agency system) to the single-source local area network as a capability demonstration.

Demonstrating Connectivity

A well designed architecture allowed the ACE to "push" intelligence products to many special consumers within and outside the CJTF by using an Intelink terminal and a TRUSTED multilevel workstation. The intent was to allow consumers to pull on-demand from these dissemination points specific standardized intelligence

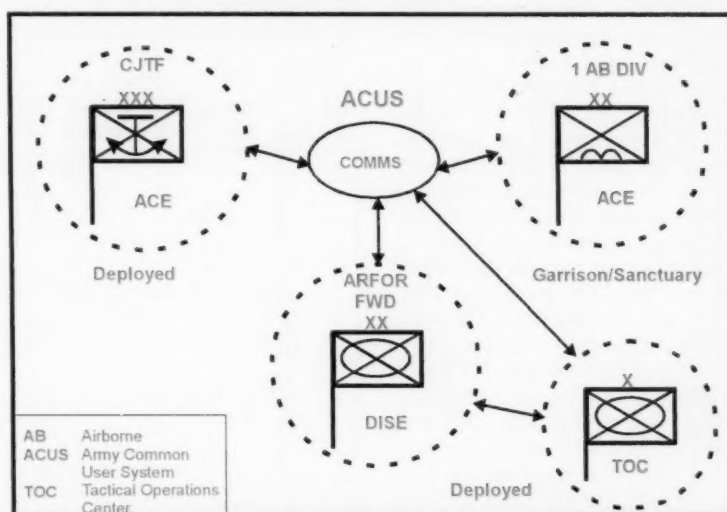


Figure 1. JWID '95 Organizational Laydown.

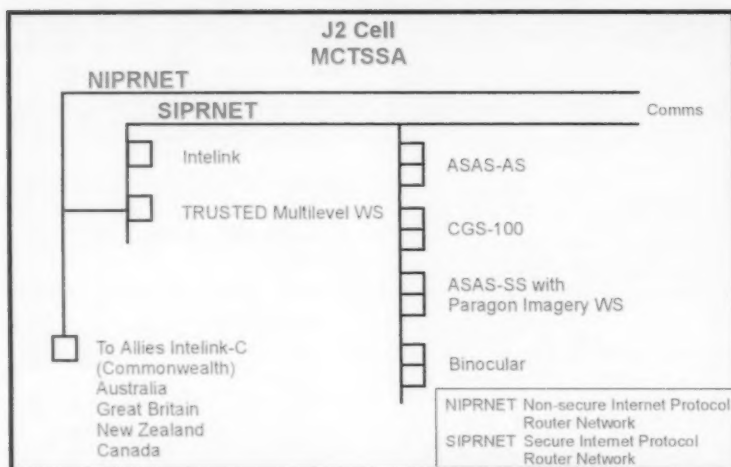


Figure 2. Diagram of the CJTF J2 Cell.

products. Examples of these standardized all-source products include a graphic intelligence summary (INTSUM), a graphic intelligence report, and an enemy order-of-battle report. The leadership in the ACE concentrated all available human talent and equipment capabilities to create these products. The concept was to amplify the product through the use of focused resources and to support other locations with intelligence as requested. These additions allowed the ACE to provide timely and accurate intelligence to the allies and all tactical JTF ground commanders.

A mix of workstations (see Figure 3) to meet the mission and functions requirements was the basis of the ARFOR FWD. The baseline ASAS Remote Workstation (RWS) provided the common enemy picture and products from the CJTF and 1st Airborne Division ACE. One of the more important missions for the RWS was to send message reports and products to the ACE for fusion with other data. A Joint Deployable Intelligence Support System workstation provided the ARFOR FWD direct links for a "push-pull" capability. Use of several different types of fielded workstations enabled use of automated terrain, human intelligence, and tactical exploitation of national capabilities (TENCAP). These allowed

the ARFOR FWD to concentrate on fighting the battle with a full spectrum of automation support. We used a prototype ASAS Block II system and a LINC 5D imagery server to test and evaluate some increased functions not yet in the baseline system. This provided the ARFOR DISE with some great experience with baseline capabilities and a look at emerging experimental applications.

In this exercise, the soldiers for the CJTF ACE came from III CORPS and I CORPS intelligence organizations with technical augmentation from the Project Manager Intelligence Fusion. The 1st Airborne Division ACE was an element from XVIII Airborne CORPS. The I CORPS soldiers operated the ARFOR DISE. This satisfied the JWID mission re-

quirement of having baseline capabilities operated by actual Army intelligence soldiers and organizations. The participants and distinguished visitors praised the soldiers for their outstanding briefings and exceptional demonstrations. The key to any operation is the selection of the soldiers to make intelligence happen. These soldiers clearly were "Always Out Front!"

JWID Operations

At the start of the exercise, intelligence data and imagery fed directly into the ASAS single-source workstations or through the Binocular workstations replicated the intelligence battlefield operating system (BOS). For sensors that were not reporting due to simulation or exercise limitations, we manually created the needed data to stimulate the system and analytical operations. The ASAS single-source operators assessed the mass of data and then sent doctrinal products to the ASAS all-source for fusion. The ASAS single-source added value to combat information by applying human cognitive ability to create a quality product specifically engineered for timely fusion. The ASAS all-source fusion is the ability to combine multiple reports of a single object despite time, location, and definition differences. Additional key capabilities demonstrated by the all-source system include an ability to show an advanced analytical capability

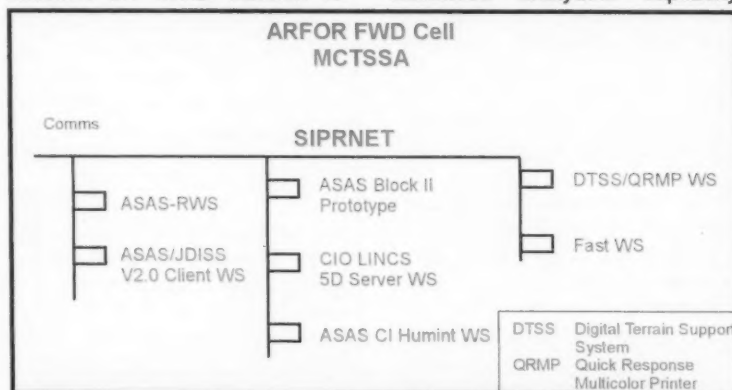


Figure 3. Diagram of the ARFOR FWD Cell at Camp Pendleton.

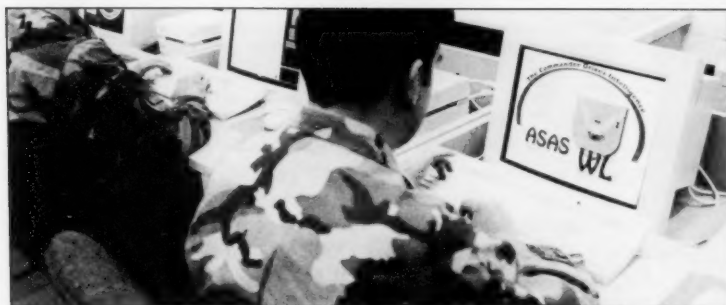


Photo provided COL Chopin

ASAS single-source and remote workstation operations.

through node maintenance and a robust graphic INTSUM capability. Node maintenance allowed the all-source analyst to link battlefield objects and entities and assess enemy capabilities based on inferential and spatial relationships. This crucial function facilitated both the production and dissemination of easily understood graphic INTSUMs to all the elements of the CJTF, including the allies.

The vertical integration of the intelligence BOS provided a common view of the battlefield. The DISE, combat brigade, and both the ACE organizations continually exchanged data, reports, and

products. This allowed database updates as special events and new combat information triggered actions or decisions during operations. The CJTF ACE became the focal point for detailed analysis and production. This continual operational exchange promoted both conceptual and detailed understanding of the battlespace that allowed the CJTF to dominate the enemy.

JWID Results

During the JWID demonstrations, the intelligence elements performed all objective functions. These functions were—

- ☐ Push-pull intelligence product movement and receipt.
- ☐ Information exchanges with the other Services.
- ☐ Links with broadcast, weather and allied systems.
- ☐ Enemy situation information provision to Global Command and Control System.
- ☐ Horizontal, vertical, and joint interoperability.

This exercise reinforced one key point repeatedly—the intelligence BOS leaders need detailed knowledge of the capabilities and operating procedures of the crew-served weapon system called ASAS. Leaders with this knowledge successfully accomplished the mission, optimized system capabilities and soldier abilities, and moved toward mastering intelligence support in a joint environment.

Master Sergeant Fallon is the Chief Intelligence Sergeant for the Training and Doctrine Command System Manager-ASAS. He has a bachelor of science degree in Business Administration from the University of Texas. Readers can contact the author through E-mail at fallonm%hua1@huachuca-ernh11.army.mil.

TRADOC Systems Managers

* **TSM GBCS/Ground Systems**
ATZS-CDG
DSN: 821-5579/5850
COMM: (520) 533-xxxx
Fax: 821-2534

Common Sensor Team
DSN: 821-2429/1760

GRCS
AQF

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Fax: 214-6885

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COMM: (520) 533-xxxx
Fax: 821-5643

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* **TSM ASAS**
ATZS-CDA
DSN: 821-3504
COMM: (520) 533-xxxx
Fax: 821-6369
ASAS

* **INSCOM System Mgr**
Enhanced TRACKWOLF
DSN: 235-2396
Fax: 656-1001

ET

* **Topographic Engineering Center**
Project Mgr CTIS
DSN: 345-2854
COMM: (703) 355-3176

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Fax: 821-1588

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GRCS
ARL

* **Integration Division Weather Team**
ATZS-CDI-W
DSN: 879-6472/9493
COMM: (520) 538-xxxx

IMETS
AMSS

Eyes in the Sky

Aerial Systems

by Colonel Ronald W. Wilson

Family of Unmanned Aerial Vehicles

In 1988, Congress directed the Department of Defense (DOD) to establish a Joint Program Office for unmanned aerial vehicles (UAVs) and develop a master plan for military UAVs. The "Family of UAVs" continues to evolve based on field experimentation, Service requirements, and operational requirements from the various warfighting commanders in chief. All current and planned UAV systems are multi-Service and intended to be as interoperable as practical and connected to Service command, control, communications, computers and intelligence architectures.

Tactical UAV. Designed to support Army maneuver brigade and armored cavalry regiment (ACR) commanders, the Outrider close-range Tactical UAV (T-UAV) will have a range of 200 kilometers (km) with three hours on-station

time at maximum range. It will carry a day and night electro-optical (EO) and infrared (IR) sensor for reconnaissance, intelligence, surveillance,

and target acquisition (RISTA) missions. In time, the Outrider tactical UAV may have a moving target indicator (MTI) and synthetic aperture radar (SAR), electronic warfare, communications and data relay, and minefield detection capabilities. This program is currently a two-year Advanced Concept Technology Demonstration (ACTD). This system will likely see its first use in the 4th Infantry Division (Mechanized) at Fort Hood, Texas, in fiscal year 1997 (FY 97). If this ACTD transitions to a complete materiel system's fielding, the Army will field T-UAV to all Active Component Army units by FY 02.

Hunter UAV. The short-range Hunter UAV system's design supports Army commanders from echelons above corps (EAC) to ACR at ranges of up to 300 km for 8 or more hours of endurance on station. DOD canceled this program in 1995. However, one Hunter system remains at Fort Hood, Texas, for contingency op-

erations, experimentation, and doctrinal development activities, and a second system is at the DOD UAV Training Center at Fort Huachuca, Arizona, for training purposes.

Medium-Altitude Endurance UAV. The Medium-Altitude Endurance UAV (MAE UAV), also known as the Predator UAV, will complete its ACTD program on 1 July 1996. The program then will transition to the Air Force for continued development and fielding. This system will provide Army commanders at EAC, corps, and division with the ability to "see deep," out to ranges of 300 km or more, for missions of 24 hours duration or longer. The basic Predator system has day-night EO/IR and SAR sensors with growth plans for MTI, signals intelligence (SIGINT), and communications and data-relay payloads. The Predator has successfully deployed twice to the Balkans supporting North Atlantic Treaty Organization, United Nations, and U.S. forces. Although the MAE UAV system will be organic to the 11th Reconnaissance Squadron, U.S. Air Force, the Army will have forward control elements at military intelligence (MI) units from EAC through ACR to control the Predator air vehicles providing direct support to Army commanders.

High-Altitude Endurance UAV. The High-Altitude Endurance UAV (HAE UAV) is currently a three-year ACTD under sponsorship of the Defense Advanced Research Projects Agency and the Services. It will be a strategic and joint task force (JTF)-oriented system. Currently, there are two HAE UAV systems under development. The Global Hawk is a conventional UAV with a range in excess of 3,000



The Tactical UAV will provide the commander with day and night RISTA data.

U.S. Army photo



A Guardrail RC-12H aircraft in Korea.

nautical miles (approximately 5,560 km) for a duration in excess of 24 hours on station. It will have EO/IR and SAR capabilities initially, with growth planned for a UAV communications node or surrogate satellite, MTI, and SIGINT payloads. The Dark Star is a low-observable UAV designed to penetrate into heavily defended areas and conduct reconnaissance, intelligence, surveillance and target acquisition missions with an EO or SAR payload. When Global Hawk or Dark Star missions are allocated to Army commanders, or an Army officer is the JTF commander, the Enhanced Tactical Radar Correlator (ETRAC) and Modernized Imagery Exploitation System (MIES) (or successor processors) will process the imagery. If the U.S. Air Force is the "lead" Service, the processor would be the Contingency Airborne Reconnaissance System (CARS); if the Navy and Marines go in first, the Joint Services Imagery Processing System-Navy (JSIPS-N) would process the imagery. The Common Ground Station (CGS) will display the imagery no matter which system processed it.

Guardrail Common Sensor

The Guardrail Common Sensor (GRCS) is a corps-level airborne signal intercept, processing, direction-finding (DF), and targeting system. It provides continuous near-all-weather indications and

warning, situation development, tracking, and target identification over the entire corps area of interest and beyond. The unique GRCS method of conducting multi-platform airborne cooperative geolocation produces a level of speed and accuracy in SIGINT targeting unmatched by any other system in the field today. A Guardrail system comprises 12 aircraft, and no more than 3 will fly at one time.

Major components of the system include the Airborne Relay Facility (ARF), the Integrated Processing Facility (IPF), and Associated Ground Equipment (AGE). There are up to 24 operators in the IPF remotely control mission equipment and receivers in the ARF (mounted in the RC-12 aircraft) through the interoperable datalink (IDL). Use of the IDL also allows the IPF to control the SIGINT payloads on other Service's platforms. The AGE allows GRCS to operate in a split-based mode when aircraft launch from a remote location and establish datalink with the IPF during flight. Additionally, the XVIII Airborne Corps GRCS system has the capability to deploy to a forward area while leaving its IPF in sanctuary, reducing both the airlift requirement and the size of the forward element.



The Hunter UAV system is in use at Fort Hood, Texas.



The Predator UAV can fly missions up to 24-hours long.

The GRCS mission equipment consists of a communications intelligence (COMINT) subsystem, a high-accuracy COMINT subsystem, and an electronic intelligence (ELINT) subsystem. The basic COMINT intercept and DF subsystem is an enhanced version of the Improved Guardrail V (IGRV) system supplemented with the Communications High-Accuracy Airborne Location System (CHAALS). CHAALS uses time-difference-of-arrival (TDOA) and frequency-difference-of-arrival (FDOA) techniques to provide precise target location with accuracies that exceed the targeting requirements of current and planned division and corps weapons systems (including the Army Tactical Missile System Block II). The Advanced QUICKLOOK ELINT subsystem also includes TDOA and FDOA targeting capability. After detection, location, and identification of the targets, the CTT or area common user network forwards the tactical re-

ports to the corps analysis and control element.

Over the past twenty-four years, Guardrail systems have provided critical U.S. SIGINT collection capability in all theaters. Guardrail provided collection coverage along the inter-German border from 1972 through 1990, in Korea from 1974 to the present, and in Central America from 1983 through 1994. Two systems deployed to Southwest Asia during Operations DESERT SHIELD and DESERT STORM. As of May 1996, one system remains in Korea, one system is in Europe supporting Operation JOINT ENDEAVOR, the XVIII Airborne Corps system has deployed in support of the combined exercise Atlantic Resolve, and the fourth and final GRCS system is under construction in California.

Airborne Reconnaissance Low

The Airborne Reconnaissance Low (ARL) system is one of the latest MI manned aerial collection platforms. The system developed from a Commander in Chief U.S. Southern Command (SOUTHCOM) requirement for a manned aviation platform that could provide an IMINT and SIGINT collection capability in SOUTHCOM. The design requirements submitted stated that Airborne Reconnaissance Low should support nation-building, counternarcotics, and promote-democracy missions (now classified as stability and support operations or operations other than war) in SOUTHCOM's area of responsibility.

The DeHavilland of Canada Dash-7, a four-engine, turboprop, commuter airplane was chosen as the platform for SIGINT and IMINT collection. The Dash-7 aircraft's ability to operate out of austere runways, its ability to carry the mission payload and its endurance led to the Dash-7's selection. It is an extensively modified aircraft that has a higher maximum gross weight and extended range capability added in



Airborne Reconnaissance Low.

the ARL conversions. ARL aircraft survivability equipment includes the AN/APR-39A(V1) radar warning receiver, the AN/AAR-47 infrared missile warning receiver, and the M-130 flare and chaff dispenser.

Two separate systems, the ARL-IMINT (ARL-I) and the ARL-COMINT (ARL-C), designated the O-5A and EO-5B respectively, were initially developed to meet SOUTHCOM's requirements. The ARL-C has a high-frequency, very-high frequency (VHF), and ultrahigh frequency (UHF) direction-finding (DF) capability controlled by four onboard operator stations. Dissemination is through secure UHF (line-of-sight and SATCOM) or VHF-frequency modulation communications, or in the post-mission downloads of COMINT data. ARL-I has three separate imagery systems onboard: first-generation forward-looking infrared camera turret, a day-imaging system camera turret, and an infrared line scanner. The system can send RS-170 video imagery via downlink to commercial off-the-shelf systems, such as TACLINK II, which is a portable video receiver. Two onboard operators can record information on 8-millimeter videotape or transmit "live" to the ground forces commander.

Designated the RC-7B, the ARL-M (Multifunction) includes upgrades to systems already installed on ARL-I and -C, and added MTI SAR capabilities. The

MTI-capable ARL-M will replace the retiring OV-1D Mohawk side-looking airborne radar aircraft. Planned SIGINT collection improvements include the Superhawk radio intercept and DF system. Four onboard operators manipulate IMINT, SIGINT, and MTI SAR data. ARL-M has growth potential to include systems like the Communications High-Accuracy Location System-Exploitation (CHALS-X), a second-generation FLIR, the Radar Ground Display System, and improvements to the airframe.

A comprehensive in-depth look at the ARL systems will be in a future article in the *Military Intelligence Professional Bulletin*. The article will discuss system capabilities, mission tasking, dissemination, and more.

Colonel Ron Wilson is currently the U.S. Army Training and Doctrine Command Systems Manager for UAVs, GRCS, and ACS. He has held several commands including the 319th MI Battalion (Airborne) and a variety of staff positions in intelligence and aviation units. During Operations DESERT SHIELD and DESERT STORM, he was the XVIII Airborne Corps Deputy G2; and served as a G2 Operations Officer during Operation JUST CAUSE. Colonel Wilson's military education includes the Army Command and General Staff College, the School of Advanced Military Studies (SAMS) where he earned a Master in Military Arts and Science degree, and the National War College. He has a bachelor of science degree from Ohio State University, and a second master of science degree in National Security Strategy from the National Defense University. Readers can contact him at (520) 533-1804, DSN 821-1804, and E-mail wilsonr@huachuca-emh98.army.mil.

MI Ground-Based Systems: TROJAN SPIRIT II and IEWCS

by Lieutenant Colonel Gary W. Parker and Sergeant First Class Dan O. Stephens II

The Training and Doctrine Command (TRADOC) System Manager (TSM) Ground is the Army Proponent for the Intelligence Electronic Warfare Common Sensor (IEWCS) and the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) II. This article provides an overview of these systems and their current status.

TROJAN SPIRIT II Update

The TROJAN SPIRIT II, or TS II, is the linchpin system for providing information connectivity to the military intelligence (MI) battlefield operating system. The following information is a general update on what the system does, its physical configuration, basis of issue, and current program status. By understanding this system, the MI professional can add another piece of technology to the tool kit that provides the required timely intelligence to the tactical commander in the field.

The TS II uses secure commercial and military satellite communications (SATCOMs) to provide national- to tactical-level connectivity in support of the warfighter's intelligence needs. The system supports force projection by enabling split-based operations between intelligence operating bases in sanctuary and forward deployed units, and helps achieve information dominance by providing the means for rapid, secure, and seamless sharing of critical information in voice, data, or video formats across all echelons.

A TS II system consists of two heavy high mobility multipurpose wheeled vehicles (HMMWVs) with shelters, and a 2.4-meter diameter SATCOM antenna mounted on a tactical trailer. Only

one HMMWV (with the SATCOM antenna trailer) is required to operate the system; the other HMMWV is a spare equipment and maintenance vehicle. TS IIs assigned to echelons-above-corps MI units have an additional 6.1-meter SATCOM antenna. A TS II is capable of aggregate data rates of 1.544 megabytes per second (or "T-1"). Operating personnel for the system is nominally four 98 career management field soldiers. The basis of issue is two TS IIs per Force Package 1 (FP1) division; two per corps; one per FP2 division, ACR, and separate brigade; and four per MI force projection brigade.

The TS II program is currently in the production, deployment, and operational support phase of development. TROJAN SPIRIT II fielding to date is—

- ☐ Twenty-three Army TS IIs fielded to Army MI units to date, with most units receiving at least one during FY95.
- ☐ Two TS IIs fielded to the Defense Airborne Reconnaissance Office.
- ☐ Two TS IIs fielded to the U.S. Marine Corps (USMC).
- ☐ The materiel developer has acquired the additional six

USMC systems to be fielded later this year.

- ☐ The Predator Unmanned Aerial Vehicle (UAV) Advanced Concept Technology Demonstration has ordered one system.
- ☐ The U.S. Air Force has indicated a desire to buy up to 13 additional TS IIs for their operational Predator UAV squadron.
- ☐ Contractor materiel shortages and funding problems have delayed the FY96 fielding of an additional fifteen systems until the first quarter of FY97.

The Army has no plans to purchase any more TS IIs after FY97; due to efforts underway to transition MI long-haul communications requirements to the Signal Corps' Army Common-User System.

From the continental United States to Bosnia, TS IIs around the world continue to serve MI units and their supported commanders by providing secure, mobile, and robust connectivity between warfighters and the sustaining base. As fielding of the TS II continues, most MI professionals can expect in the near future to receive support either directly



Photo provided by Charlie Eckholdt

TROJAN SPIRIT supporting the USMC during operation STRONG RESOLVE.



Photo provided by Ron Snelson

TROJAN SPIRIT supporting Predator UAV on Gjader Airfield, Albania.

or indirectly from a TROJAN SPIRIT II system.

IEWCS Overview

The Intelligence Electronic Warfare Common Sensor (IEWCS) is the future division-level signals intelligence (SIGINT) electronic support and electronic attack system. The IEWCS system consists of the Ground Based Common Sensor-Heavy (GBCS-H), Ground Based Common Sensor-Light (GBCS-L) and the Advanced QUICKFIX (AQF). A fourth system called the Mobile Electronic Warfare Support System (MEWSS) is the U.S. Marine Corps' IEWCS system. For further information concerning the IEWCS systems see the article,

"Electronic Battle Space Domination: The IEWCS System" published in the January-March 1996 issue of *Military Intelligence Professional Bulletin*.

IEWCS Testing

The IEWCS testing sequence is a unique one in that IEWCS is made up of three systems: GBCS-H, GBCS-L, and AQF. As such, each of the three systems requires its own Initial Operational Test and Evaluation (IOT&E) which essentially provides a 3-year time frame in which to complete evaluation of the IEWCS system as a whole. An IOT&E is a rigorous evaluation of the system under test. The test is designed to identify any problems,

that the system architecture may have so that the fielded system is the best that it can be. IEWCS testing will occur over the next three years:

- ☐ The first IEWCS IOT&E for the GBCS-L will be in September 1996. Due to the requirement to have at least three systems interoperating, the test will use two each GBCS-Ls, GBCS-Hs and AQFs for this test. In addition, the U.S. Marine Corps will be testing their MEWSS; they are using the IOT&E as a customer test for the MEWSS. Having all the IEWCS systems present during the test will afford the opportunity to evaluate the performance and interoperability of all the different IEWCS systems.
- ☐ The AQF IOT&E will take place in the third quarter (3Q) fiscal year 1997 (FY97).
- ☐ The final IEWCS IOT&E, testing the GBCS-H, will occur in 3Q FY98.

Each test will provide input to ensure the fielded system meets or exceeds the users' requirements.

IEWCS Fielding

Initial fielding will consist of the GBCS-L (FY97) and the AQF (FY98) only. In FY02 the GBCS-H will be ready for fielding. At that

(Continued on page 60)



U.S. Army photo

IEWCS Sensor System Components.

by Chief Warrant Officer Two
Charles S. Montgomery,
Sergeant First Class John G.
VanKirk, and Staff Sergeant
John P. Moody

The purpose of the TENCAP Program is to exploit the current and future tactical potential of national space systems and to integrate these capabilities into the Army's tactical decisionmaking process as rapidly as possible. The TENCAP program provides the commander immediate access to national assets and the information they provide. Without a TENCAP asset, the commander has to be force-fed national-level intelligence from above. With a TENCAP asset, the commander is able to pull the data he requires, when he needs it. The bottom line is that these assets and the information they provide are readily available to the commander.

Since 1973, the Army Space Program Office (ASPO) has been the proponent for managing the TENCAP Program. During this time, the ASPO has fielded numerous systems that provide the tactical commander from echelons-above-corps (EAC), corps, division, and the separate brigade access to national and theater overhead collection capabilities. These systems have deployed worldwide, on a variety of platforms from 40-foot vans to high-mobility multipurpose wheeled vehicles (HMMWVs) and man-portable workstations. Current EAC and corps TENCAP systems include the Electronic Processing and Dissemination System (EPDS), the Modernized Imagery Exploitation System (MIES), the Enhanced Tactical Users Terminal (ETUT), and the Enhanced Tactical Radar Correlator (ETRAC).

Functions

The TENCAP systems allow the commander to plan contingency operations in otherwise denied areas. They also support deep and rear operations by—

Tactical Exploitation of National Capabilities Program

- ☐ Providing the ability to see deep.
- ☐ Providing targeting, terrain ingress and egress information.
- ☐ Improving command and control (C²).

All TENCAP systems are capable of robust communications via the TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT), Mobile Subscriber Equipment (MSE), satellite communications (SATCOMs), and the Automated Digital Information Network (AUTODIN).

All TENCAP systems act as preprocessors for the All-Source Analysis System (ASAS). These systems use the TENCAP Communication System Processor (CSP) for communicating with the ASAS.

As today's TENCAP systems migrate into the Tactical Exploitation System (TES), preprocessing for and interoperability with the ASAS is a key requirement. This requirement extends to the creation of a seamless environment between the TES and the ASAS in which intelligence products, files, and databases can be pushed or pulled between the two systems. This interactive environment should greatly reduce the time required for—

- ☐ Acquisition of a target by a sensor.
- ☐ Processing.
- ☐ Analysis.
- ☐ Fusion with other intelligence.
- ☐ Presentation to the commander as the common picture of the battlespace.

Corps and EAC TENCAP Systems

EPDS. The EPDS is a trailer-mounted, transportable system

that receives and processes data collected by national, theater, and corps sensors and forwards the products to the tactical commands supported by TENCAP and the ASAS. Products of the EPDS include tailored and automatic intelligence reports, electronic order of battle updates, and dynamic database processing and reporting. The XVIII Airborne Corps, V Corps, III Corps, I Corps, the 513th MI Brigade, and the 501st MI Brigade have EPDS systems.

MIES. The MIES is an imagery exploitation system capable of receiving, processing, exploiting, and disseminating national imagery and imagery products. The MIES products include annotated secondary imagery dissemination (SID) products, intelligence reports, hard-copy prints, imagery and "hasty" map products. MIES is organic to the XVIII Airborne Corps, V Corps, and the 513th MI Brigade.

ETUT. The ETUT is a trailer-mounted system that processes signals intelligence (SIGINT) data and intelligence received from other TENCAP systems. It provides security sanitization of the data it receives and also provides tailored reporting to its command. Products include intelligence reports, annotated imagery, and targeting data. The XVIII Airborne Corps, V Corps, III Corps, I Corps, 513th MI Brigade, and 501st MI Brigade all currently have ETUTs.

ETRAC. The ETRAC provides all-weather day and night real-time image data to the corps commander, by receiving, processing, exploiting, and disseminating theater imagery. ETRAC products include—

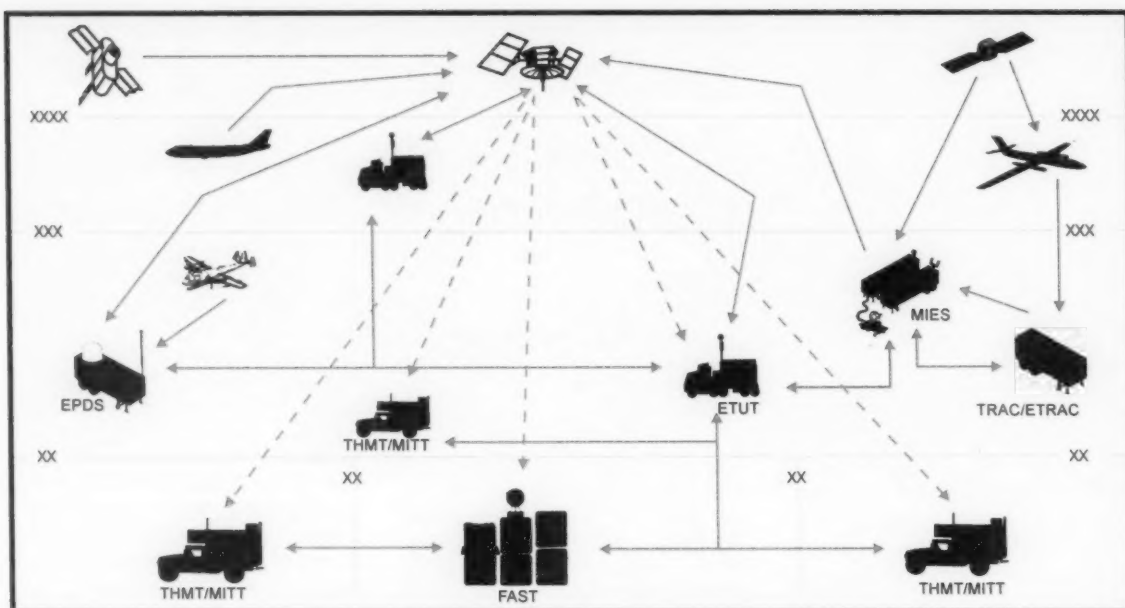


Figure 1. TENCAP Program Architecture.

- ☐ Annotated SIDs products.
 - ☐ Intelligence reports.
 - ☐ Hard-copy prints and imagery.
 - ☐ Hasty map product.
- The XVIII Airborne Corps and V Corps currently have the ETRACs system.

Support to Division and Below

Army TENCAP provides support to the division, armored cavalry regiments, and other specialty commands by the Mobile Integrated Tactical Terminal (MITT) and the Forward Area Support Terminal (FAST). The MITT provides ETUT functionality in a more mobile vehicle than a trailer, the HMMWV. The FAST also provides ETUT-like functionality in a man-transportable, modular, survivable stand-alone multi-tasking system. The MITT and FAST systems both provide seamless multisource intelligence receipt, transmission, and analysis of a wide range of intelligence products from national, theater, and tactical collection assets.

The TENCAP architecture allows the dissemination of multi-source collection to all echelons

in near-real time. This is done via the TENCAP Communication System Processor (CSP). The TENCAP CSP provides the capability to receive and transmit data from both landlines and radio-frequency circuits. It also provides connectivity to up to 15 mode-1, mode-1s, Generic Gateway (Digital Data Communications Protocol, DDCMP/Full Duplex Message FDMP), half duplex and asynchronous tactical circuits. This equipment is common to all TENCAP systems and gives tactical decisionmakers at all echelons the information they need, when they need it.

Support to SASOs

TENCAP has been instrumental in providing intelligence and C² assistance during numerous stability and support operations (SASO) from Somalia to Bosnia. Currently, V Corps TENCAP assets are supporting Operation JOINT ENDEAVOR both in Germany and Bosnia by providing near-real-time operational intelligence to the Peace Implementation Force (IFOR) deployed in the theater. Previously, the 10th Mountain Division's FAST de-

ployed in support of Operations UPHOLD/MAINTAIN DEMOCRACY in Haiti and RESTORE HOPE in Somalia. TENCAP not only provided intelligence data but, because of the robust communications that TENCAP brings to the theater of operations, TENCAP provided collection managers with an additional C² capability. Additionally, during Operations DESERT SHIELD and DESERT STORM, numerous TENCAP assets from V Corps and III Corps deployed to Saudi Arabia.

This was the first time that the TENCAP systems from all echelons deployed to support multinational forces. During all of these deployments, TENCAP systems provided near-real-time intelligence support to the tactical decisionmakers for the alliance forces and was instrumental in providing robust communications support to all U.S. Forces.

Future Initiatives

The ASPO and the TENCAP Program plan a number of future initiatives. These include the Advanced EPDS (AEPDS), Tactical Exploitation System (TES),

Graphical Situation Display (GSD) software, and automatic and assisted target recognition (ATR) processors.

AEPDS. The AEPDS combines the functions of the EPDS and the ETUT in a single downsized system. Its initial fielding will be in 1997. All four corps and the EAC MI brigades will receive it.

TES. The TES is a TENCAP system of systems combining the capabilities of the AEPDS, the MIES, and the ETRAC into a modular and tailorable package that is rapidly deployable and is as mobile as the headquarters it supports. The TES will segment into forward and main elements. The forward segment will be able to land with the initial entry forces to provide the Commander with immediate national- and theater-level intelligence support. The main segment has been designed to—

- ☐ Operate behind the initial entry forces.
- ☐ Support split-based operations.
- ☐ Provide continuous updates while the force is moving to its destination.
- ☐ Conduct detailed analysis of intelligence collected.
- ☐ Maintain a master database.
- ☐ Gather intelligence on other contingency areas.

The prototype TES will be available approximately FY 98 and will be organic at corps and EAC units.

GSD. The GSD is an Army-led joint program to standardize graphic information displays. Integrating GSD concepts, methodologies, standards and software modules into existing hardware and software architectures will deliver immediate benefits. First, the speed with which an analyst will be able to interpret the data before him and produce a report will increase dramatically, and in some instances will be automated. Next, the generated reports will be "readable" by all other intelligence and electronic

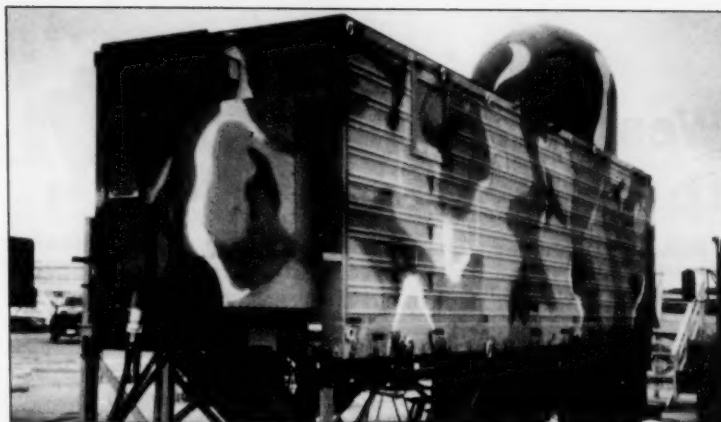


Photo provided by author

The Army TENCAP Program's Electronic Processing and Dissemination System.

warfare (IEW) and C² systems, layered in detail of data and echeloned presentation, and will fit into standard databases. Everyone will get the same information but the layering and databasing capabilities will allow customers to write queries that are specific to their needs and echelons. This allows a commander at corps, for instance, to "call-up" a graphical depiction of all tank battalions in the commander's area of interest; another commander can use the same database to display every individual tank in the battalion's area of interest. Both commanders could "flicker" between this data from an hour, a day, or a week ago to instantly understand the changes that have occurred. This system is available in the MIES now and should be in the other current systems by the end of calendar year 1996.

ATR. The ASPO continues to research and develop ATR processors for integration into TENCAP systems. These processors would aid the imagery analyst in performing initial target detection from wide area search imagery. ATR processors will automatically scan the imagery as it is processed, for specific patterns and shapes, and will notify the analyst, using GSD, of the targets' locations and perceived identities. The analyst will confirm, deny, or modify the processors "call" and can then immediately release a

preformatted message or graphic report to the customer.

Conclusion

In today's environment of operations ranging from SASO to full scale war, it is imperative that MI provides the commander with all relevant intelligence available. It is also imperative that the commander controls the assets providing this intelligence. TENCAP has a history of reliably delivering the intelligence the commander needs, when needed, in an easily used format. The future initiatives of TENCAP insure that this tradition will continue and improve as we move into the 21st century and support Force XXI.

Chief Warrant Officer Two "Steve" Montgomery is currently Chief of the TENCAP Team, Systems Division, Directorate of Combat Developments, USAIC&FH. He holds a bachelor of science degree (BS) in Government and Politics from the University of Maryland. His previous assignments include service at the Intelligence Threat and Analysis Center, Washington D.C. and 501st MI Brigade in Korea as an Indications and Warning Analyst. Readers can contact him at (320) 533-4614, DSN 821-4614, and via E-mail/PROFS montgomc%hua1@huachuca-emh11.army.mil or tencap@huachuca-emh3.army.mil.

Sergeant First Class John Van Kirk is the NCOIC of the TENCAP Team; he has a BS in Electrical Engineering from San Diego State University. Staff Sergeant John Moody is the TENCAP Project NCO. He will be moving to the Joint Intelligence Center-Pacific in Hawaii. Both NCOs are highly experienced with TENCAP systems. Readers can contact them at (520) 533-4620, DSN 821-4620.

Weather Support to the Warfighter



by Richard J. Szymber

Weather affects soldier performance, equipment capabilities, and the ability of forces to maneuver on the ground and in the air. Weather support is crucial to operational and tactical warfare and will continue to be an important aspect of planning and execution for Army commanders at all echelons. The basis for Army weather support is requirements described as joint doctrine in the newly revised FM 34-81/AFJPAM 15-127, **Weather Support for Army Operations**. This article will address the Integrated Meteorological System (IMETS) and the currently unfunded Automatic Meteorological Sensor System (AMSS). Three sequential processes provide weather support: collection of environmental observation data; automated collation, processing, analysis, and application of data fields and forecasts to predict effects; and dissemination of weather effects products to the user. IMETS will accomplish these functions.

IMETS

IMETS is a mobile, tactical, automated weather-data receiv-



The Army's Integrated Meteorological System.

ing, processing and dissemination system designed to provide timely, tailored, meteorological effects forecasts, observations, and decision aids. They provide this information to multiple command elements and their major subordinate commands at echelons at which the Air Force weather teams directly support the Army. Their customers include echelons above corps, corps, divisions, separate brigades, armored cavalry regiments, and special operations forces (SOF). It is an Army-furnished system comprising a standard shelter and vehicle, Army Battle Command System communications systems, and common hardware and software. Air Force Weather personnel operate the IMETS, and Army personnel maintain it within the Army support structure. Mounted on a heavy High-Mobility Multipurpose Wheeled Vehicle, IMETS is deployable on C-130 or larger aircraft, medium-lift helicopters, rail, or ships.

IMETS contains the computers and communications devices necessary to—

- ☐ Receive information from multiple sources (including meteorological satellites, local and remote sensors (including the AMSS), artillery meteorology systems, theater forecast units, and the Air Force Global Weather Central).
- ☐ Run high-resolution weather prediction models and automated weather effects decision aids.
- ☐ Process this information for tactically tailored products.



Photos provided by author

The AMSS program is not funded.

- ☐ Disseminate them across the battlespace.

Products will be in the form of weather messages and warnings, preprocessed decision aids, tailored output fields for specific decision aids and automated intelligence preparation of the battlefield weather analysis, and also automated visualization of weather situations and effects.

By understanding the effects of weather, seeing the opportunities it offers, and anticipating when they will come into play, the commander can set the terms for battle to maximize his performance and take advantage of limits on enemy forces. IMETS provides commanders and their planning staffs with known and forecast conditions in the air and on the ground. This knowledge enables them to incorporate forecast conditions into their planning before a battle, helping the commander to choose the time, manner, and place of engagement.

IMETS fielding began in 1995, with a total of 32 systems to be fielded through 1997. Current users of IMETS are the Eighth U.S. Army and 2d Infantry Division in Korea; XVIII Airborne Corps and 82d Airborne Division at Fort Bragg, North Carolina; and III Corps, 4th Infantry Division (Mechanized), and 1st Cavalry Division at Fort Hood, Texas. Future IMETS technology and capabilities tested successfully in Exercise Atlantic Resolve '94 and

(Continued on page 60)

Alternative Change in the Force XXI GS MI Company

by Captain Jules P. Cabeen, Jr. and First Lieutenant Brian R. Dunmire

Editor's Note: The 104th Military Intelligence Battalion supports the 4th Infantry Division (Mechanized) (4th ID (M)). Force XXI's experimental force (EXFOR).

The views expressed in this article are those of the authors and do not reflect official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

Force XXI is a vision at the end of a long and winding road. Changes in technology, manpower, and force structure are necessary to realize that vision. Even more critical is how we, as an Army and a branch, manage those changes.

Much of the discussion about the future general support (GS) military intelligence (MI) company focuses on new doctrine and technology. Relatively little attention has been given to organization. This narrow focus will cause us to forget just how much we still need to change structurally.

Current and Proposed Organization

Today's organization must provide the starting point for any discussion of future structure. The current Modified Table of Organization and Equipment (MTOE) for the GS MI company looks more like the old Army than the new one being fought in our War-fighter exercises. Old structures like the collection and jamming (C&J) platoons, transcription and analysis (T&A) teams, and frequency-modulation radio retransmission (RETRANS) section remain, but new paragraph and line numbers appear in the docu-

ment for the future Ground-Based Common Sensor (GBCS) and tactical unmanned aerial vehicle (UAV).

As currently organized, the GS company deploys its assets along multiple direction-finding (DF) baselines to provide electronic warfare support (ES) and electronic attack (EA) to the division. A T&A team from one of the three C&J platoons forms the nucleus of a platoon operations center (POC). The POC plays a critical role in command and control (C²) of GS assets. In addition, the RETRANS section gives the company a radio-relay capability (see Figure 1).

In contrast, the proposed Force XXI GS MI company looks very different from today's organization. Communications collection and jamming merge in a common platform with the fielding of the GBCS; it also adds an electronic intelligence (ELINT) collection capability against noncommunications emitters like radars. The GBCS platoon replaces both the C&J platoons (with the AN/TRQ-32 TEAMMATE and AN/TLQ-17 TRAFFICJAM) and the SIGINT

platoon (AN/TSQ-138 TRAILBLAZER). The MTOE no longer authorizes T&A teams and the RETRANS section. The company gains a UAV platoon providing an imagery intelligence (IMINT) capability (see Figure 2).

Like today, the future GS MI company will provide the division with ES and EA. The big difference will be in how it performs that mission. The design of the new structure provides not only the communications intelligence (COMINT) baseline with GBCS and Advanced QUICKFIX, but also an aerial reconnaissance capability with the UAV-Short Range. Sensors will send information directly to both the Analysis and Control Element (ACE) (sensitive compartmented information level) and direct support (DS) companies (collateral level). GS company assets will be capable of performing a number of tasks including battle damage assessment (BDA), force protection, ES and EA.

Through trial and error, the 104th MI Battalion is providing solutions to reshape the Army's intelligence concept for the 21st

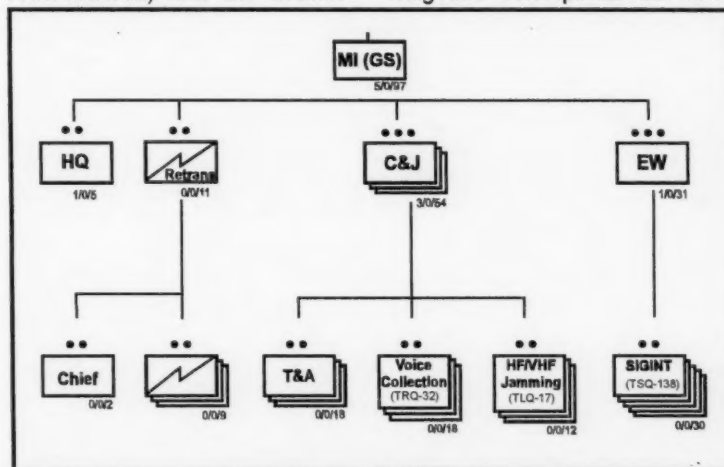


Figure 1. A-Series MTOE, GS MI Company [EDATE 951216].

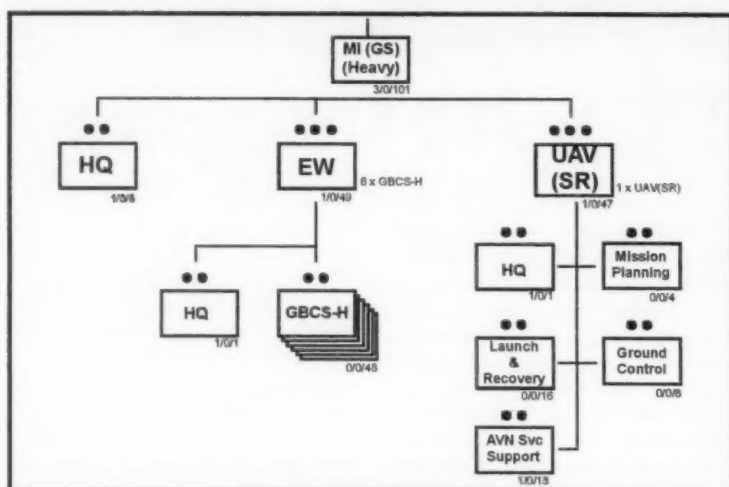


Figure 2. Division XXI GS MI Company.

century. As part of this effort, Delta Company, the battalion's GS company, reorganized last September from elements of the old Alpha and Charlie companies. Since that time, the unit has tested future concepts in a number of settings including a field connectivity exercise, battle simulations, and deployments to the National Training Center (NTC). The lessons learned from these experiences provide a starting point for changing tactics, techniques, and procedures and should form the basis of any consideration of force structure.

Lessons Learned

A fundamental problem with the proposed Force XXI structure is loss of the collection and jamming platoon's POC. In the future, GS company assets must work exclusively under the centralized control of the ACE and a new organization, the Intelligence Operations Cell. The Intelligence Operations Cell was formed by merging the operations sections of the 104th MI Battalion and the 4th ID(M) G2 at the division main command post (DMAIN).

But does centralized control from the DMAIN really eliminate the need for a POC? As the ACE assumes greater responsibility over deployed GS assets, competing demands placed on it by

both the G2 and the GS company will stretch its ability to perform either job effectively.

The ACE can provide technical data to deployed assets, but not C². Operating in a DS role to the G2, its focus is on intelligence production for commanders. The Intelligence Operations Cell, like the ACE, performs a number of tasks in the DMAIN which affect its ability to command and control the GS company.

During the 4th ID(M) Warfighter exercise in January 1996, the division zone stretched more than 100 kilometers in an attack. The Intelligence Operations Cell and ACE, located at the DMAIN, were 40 to 50 kilometers behind deployed DF baselines. These distances, combined with delays in the battlefield "picture" presented by the All-Source Analysis System (ASAS), created problems in situational awareness in both the ACE and Intelligence Operations Cell.

This problem will be even greater if the ACE is in sanctuary 250 kilometers behind the forward-line-of-own-troops (FLOT) or line of contact. Distances of this magnitude make intelligence and electronic warfare (IEW) architecture vulnerable to data degradation, enemy jamming, and terrain effects.

Lack of situational awareness clearly causes problems in controlling individual GS assets. Some organization must direct and monitor EA; order baseline adjustments or jumps; direct survivability moves based on a timely, accurate battlefield picture; and supervise casualty evacuation, resupply, and other activities. These actions are difficult to execute in close proximity to baselines, let alone from the rear. Elimination of the POC puts all our eggs into one basket at the DMAIN.

The 104th MI Battalion has taken steps to maintain a POC in its GS company. In a transitional move, Delta Company merged three T&A teams from the C&J platoons. This new element will serve multiple roles as—

- ☐ A surrogate for the ACE.
- ☐ A division-level Deployable Intelligence Support Element (DISE).
- ☐ An MI battalion tactical command post.
- ☐ A forward logistical base when augmented with maintenance contact teams.

The Warfighter experience demonstrated that a GS company POC, working closely with the ACE and Intelligence Operations Cell, provides versatility, situational awareness, and responsive C² for ground SIGINT teams. As the mission and roles of this new element develop, manning requirements should change. Recognizing the importance of this element, the battalion attached a warrant officer from the ACE to the GS company to assist with technical SIGINT control. With time, this structure will look more and more like an ACE (forward) as it fills the need for ELINT specialists and order of battle technicians.

C² of UAV assets is emerging as a complex challenge. The aircraft, ground control stations, and launch and recovery teams range far beyond the GS company commander's span of control. The UAV platoon, as currently pro-



Soldiers boarding a QUICKFIX helicopter. posed, contains between 8 and 12 aerial sensors, operates far from deployed ground SIGINT assets, and requires much different support in terms of security, terrain and airspace management, engineers, fuel, and repair parts. In the 4th ID(M) Warfighter exercise, launch and recovery sites operated up to 100 kilometers behind the FLOT. These sites are more supportable from the MI Battalion's administration and logistics center than through the area support concept.

The solution to the UAV C² problem is to make a separate UAV company within the MI battalion. A GS UAV company, which would be larger than the three direct support companies, ensures proper sustainment and C².

A RETRANS element in the GS company was useful under the old company-team concept. However, the need to serve both the GS company and other battalion assets is greater today. A battalion connectivity exercise in September 1995 revealed that the RETRANS capability works best under centralized control. This arrangement improved the link between the ACE and deployed ground SIGINT assets.

A Transitional Model

One fact is certain: we will not jump overnight from today's structure to the Force XXI structure. D Company has established a transitional structure to both perform its ES and EA mission and prepare for the fielding of new equipment like the GBCS.

Consolidation of similar systems from the three separate C&J platoons yields three interim platoons and a company POC with the T&A teams. The interim platoons are an ES platoon consisting of three TRQ-32 collection systems, an EA

platoon of three TLQ-17 systems, and an electronic warfare (EW) platoon which contains the TSQ-138 TRAILBLAZER formerly assigned to the old C Company. The EW platoon is the fielding base for the GBCS, received initially in March 1996 for the February 1997 Advanced Warfighting Experiment (AWE) at the NTC. This restructuring facilitates training, maintenance, accountability, and task organization into DF baselines as we operate today (see Figure 3).

Alternative Structure and End-State

In looking forward to the proposed Force XXI GS company, several alternatives require consideration. Without this consideration, a generation of MI leaders will be forced to find tactical workarounds for shortcomings in force

structure which could have been avoided today.

First, consideration should be given to building two GBCS platoons of four systems each rather than one platoon of six. Experience suggests that more GBCS systems than the currently proposed number of six are necessary for full coverage of a division zone on the dispersed Force XXI battlefield.

With assets stretched across the areas of two forward brigades, distances are too great for one platoon leader to support the baselines adequately. A two-platoon structure facilitates deployment along multiple baselines, is more supportable, and offers DF capability with one reinforcing system in each platoon (see Figure 4).

Second, the Force XXI GS company must retain some organization to provide forward control of SIGINT assets. The model for this element is today's POC. However, its mission, role, and operating personnel will be different from today's T&A teams. The DMAIN and POC will share mission management and asset management responsibilities.

The MI battalion commander, through the Intelligence Operations Cell and ACE, will exercise mission management. The MI Battalion and G2 operations sec-

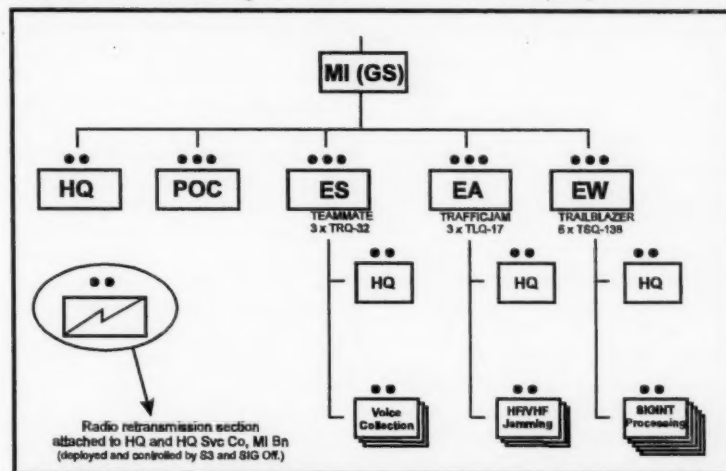


Figure 3. Transitional Organization of the GS MI Company.

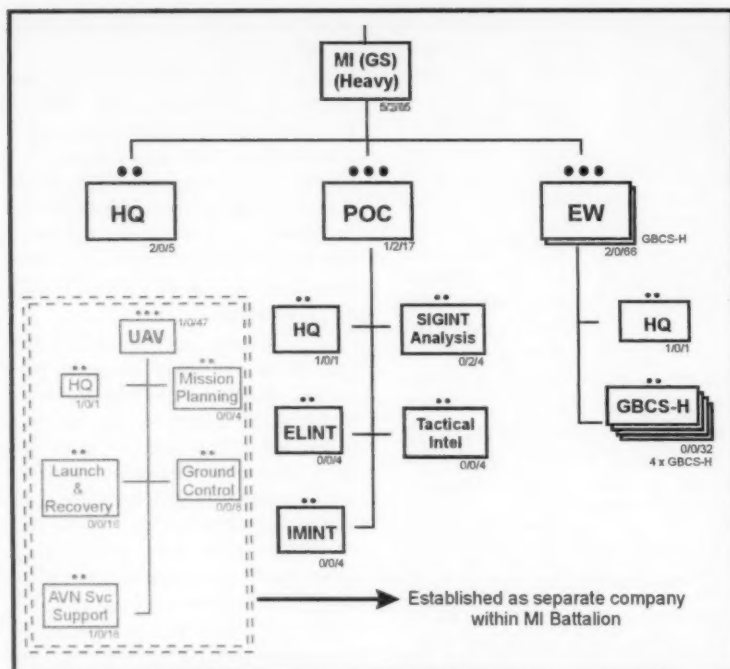


Figure 4. Alternate End-State.

tions prepare mission orders and coordinate support for the GS company. Prior to deployment, the POC receives an EW execution matrix and technical data from the ACE and orders from the MI Battalion Commander or S3 located at the DMAIN.

The GS company commander, through the POC, exercises *asset management*. The POC deploys in the vicinity of an active DF baseline and tracks the current battle from spot reports and tactical reports, directs the movement of assets, coordinates casualty evacuation, integrates logistics with maneuver, controls and monitors jamming, and communicates directly with DS company commanders.

The Force XXI POC will cue the Intelligence Operations Cell and ACE to facilitate the movement of DF baselines. In addition, it will provide critical combat information to the DS companies located at brigade command posts. Operational staffing must be more robust in terms of SIGINT and ELINT expertise to effectively ex-

ploit the technologies of the GBCS.

The 21st century unit would gain advantages in deployability by retaining a POC in the GS company. A POC facilitates tactical tailoring at division level in cases where GS MI assets are attached to brigades, deploying division ready force one (DRF 1) units, or possibly covering-force elements. Under these conditions, GS EW assets require some type of technical control beyond that currently envisioned in the Force XXI MTOE.

One solution is to build a DISE around the GS company POC. A POC would alleviate the need to train and assemble a DISE from the ACE. Similar to the technique developed at echelons above corps, in which a DISE deploys when IEW assets are inserted before the ACE deploys, a GS company POC provides the ACE a critical forward element which trains and deploys with the teams it controls.

MI units are currently without executive officers (XOs). This is a problem now and will be a greater

problem in the future when reliance on the area support concept increases the coordination workload. As currently envisioned, the future GS company is a blueprint for sustainment failure without an XO. Lack of a dedicated officer to manage maintenance and sustainment programs for the GBCS and several UAV systems will place these responsibilities on platoon leaders and sergeants. The future MTOE should include an XO in the HQ sections of both the SIGINT and UAV companies.

Conclusion

The Army has charted an aggressive path to the future with Force XXI. That path is both long and filled with uncertainty. Rapid change is occurring already in equipment, doctrine, and organization. At this point, these changes raise more questions than answers.

Reducing the level of uncertainty requires a deliberate, measured approach to emergent technology and its effects on future capabilities and force structure. The real problem is not modernization, but getting the right mix between technology, doctrine, and structure. The best way to achieve this is through a realistic dialogue between Force XXI planners and the soldiers who are actually testing new technology and force structures.

Captain Cabeen is currently the Assistant S3 of the 104th MI Battalion; through May 1996 he served as the Commander, D Company, 104th MI Battalion. He has also been S2 of the 1st Battalion, 8th Cavalry. Captain Cabeen has a bachelor's degree (BS) in Psychology from the University of Maryland, and a master's in Strategic Intelligence from the Defense Intelligence College and another in Counseling from Boston University. Readers can reach him at (817) 287-4762, DSN 737-4762/0836, or E-mail cabeenj@hood-03.army.mil.

First Lieutenant Dunmire is currently Executive Officer of D Company, 104th MI Battalion; he has also served as a C&J platoon leader and an assistant S2 in the 1st Brigade of the former 2d Armored Division (now 4th ID (M)). Lieutenant Dunmire has a BA in History from Pennsylvania State University. Readers may contact him at (817) 287-5048 or DSN 737-5048.

Roster of Key Intelligence Personnel

HQDA

LTG Paul E. Menoher, Jr.
DCSINT
Washington, DC 20310-1000
DSN: 225-3033
COMM: (703) 695-3033

Major Commands

FORSCOM

COL Ben L. Elley
DCSINT
Fort McPherson, GA 30330
DSN: 367-6440
COMM: (404) 669-6440/7593

Eighth U.S. Army

COL Charles Jackson, G2
Seoul, KOR 96301
DSN: (315) 723-3918
COMM: 011-822-723-3918

INFO SYS CMD

COL Peter Huisking
DCSINT
Fort Huachuca, AZ 85613
DSN: 879-6621
COMM: (520) 538-6621

INSCOM

BG Trent N. Thomas, CDR
Fort Belvoir, VA 22060-5370
DSN: 229-1603
COMM: (703) 706-1603

Space/Strat Def Cmd

COL Jimmy Slade, CDR
Huntsville, AL 35807
DSN: 645-5687
COMM: (205) 955-5687

TRADOC

COL Nicholas P. O'Dawe
DCSINT
Fort Monroe, VA 23651-5000
DSN: 680-3113
COMM: (804) 727-3113

USAIC&FH

MG Charles W. Thomas
CDR
Fort Huachuca, AZ 85613
DSN: 821-1140
COMM: (520) 533-1140

USARC

COL Marcel Faulk
DCSINT
Fort McPherson, GA 30330
Toll Free: 1-800-359-8483
EXT: 7900
COMM: (404) 629-7900

U.S. Army Pacific

COL Mark S. Pernell
DCSINT
Fort Shafter, HI 96858
DSN: (315) 438-9214
COMM: (808) 438-9214

U.S. Army South

LTC(P) Charles Atkins
DCSINT
Fort Clayton, PM 34003

DSN: (313) 287-3062
COMM: 011-507-87-3062

USASOC

Mr. Thad S. Strange
Acting DCSINT
Fort Bragg, NC 28307-5203
DSN: 239-6301/02
COMM: (919) 432-6301/02

PERSCOM

LTC(P) Gary Royster
Chief, MI Off Branch
Alexandria, VA 22332-0415
DSN: 221-5502
COMM: (703) 325-5652

USAREUR/Seventh Army

COL Terrence Ford
DCSINT
Heidelberg, GE 09014-5000
DSN: 370-8854/9002
COMM: 011-49-6211-57-8854

U.S. Armies

First

COL Frederick G. Fox
DCSOPS, Chief, I&S
Fort Gillem, GA 30050-7000
DSN: 797-7550
COMM: (404) 362-7550

ARCENT/Third U.S. Army

COL Dennis M. O'Keefe
G2
Fort McPherson, GA 30330
DSN: 572-4803
COMM: (404) 752-4803

Fifth

Mr. Gonzalo Galegos
Chief, I&S
Fort Sam Houston, TX 78234
DSN: 471-1702/2808
COMM: (515) 221-1702

Corps

I Corps

COL David Oberst, G2
Fort Lewis, WA 98433-5000
DSN: 357-0293
COMM: (206) 967-0293

III Corps

COL Thomas M. McLaulin
G2
Fort Hood, TX 76544-5056
DSN: 737-2202
COMM: (817) 287-2202

V Corps

COL Maxie L. McFarland
G2
Heidelberg, GE 09014
DSN: (314) 370-5200
COMM: 011-49-62-257-5200

XVIII (ABN) Corps

COL Richard Allenbaugh
G2
Fort Bragg, NC 28307-5000
DSN: 236-5716

COMM: (919) 396-5716

Divisions

1 AD

LTC Melisa E. Patrick, G2
Bad Kreuznach, GE 09111
DSN: (314) 490-6122
COMM: 011-49-671-609-7302

1 CAV

LTC Michael J. Stewart, CDR
Fort Hood, TX 76545-5128
DSN: 737-6202
COMM: (517) 287-3983

1 ID (M)

LTC Jeffrey N. Rapp, G2
Wuerzburg, GE 09036
DSN: 350-6501/02
COMM: 0931-889-6501/02

2 ID

LTC Steve Boltz, G2
Camp Casey, KOR 96224-0289
DSN: (315) 730-2118
COMM: 011-822-730-2118

3 ID (M)

LTC Nicholas R. Marsella
G2
Fort Stewart, GA 31314-5000
DSN: 870-2202
COMM: (912) 767-2202

4 ID (M)

LTC John R. Brooks, G2
Fort Hood, TX 76546-5200
DSN: 737-9218
COMM: (817) 287-9218

10 MTN (L)

LTC Brian A. Keller
G2
Fort Drum, NY 13602-5010
DSN: 341-5405/7508
COMM: (315) 772-5405

25 ID

LTC Charles Borg, G2
Schofield Bks, HI 96857
DSN: 455-4002
COMM: (808) 655-4002

82 ID (ABN)

LTC(P) Vic Rosello, G2
Fort Bragg, NC 28307-5100
DSN: 239-2252/0720
COMM: (910) 432-2252

101 (AASLT)

LTC John DeFrias, III, G2
Fort Campbell, KY 42223
DSN: 635-4802/3022
COMM: (502) 798-4802/3022

Separate Brigades

1 Bde, 6 ID (L)

CPT Scott Berrier
S2
Fort Wainwright, AK 99703
DSN: (317) 353-6022
COMM: (907) 353-6022

11 ADA Bde

MAJ Sandra Gallard, S2
Fort Bliss, TX 79916-5900
DSN: 978-1370/2480
COMM: (915) 566-1370

3 Bde, 3d ID (M)

MAJ Kurt Meppen, S2
Fort Benning, GA 31905
DSN: 784-1462
COMM: (404) 544-1462

94 ADA Bde

CPT Nicole Redington, S2
Darmstadt, GE 09175-2409
DSN: (314) 348-6555
COMM: 011-49-6151-69-6555

Regiments

2 ACR

MAJ Denver McPherson, S2
Fort Polk, LA 71459-5700
DSN: 863-0572/0577
COMM: (318) 531-0572/0577

3 ACR

MAJ Patrick Ahrens, S2
Fort Bliss TX, 79916-6700
DSN: 978-3825/2069
COMM: (915) 568-3825

MACOMS and Joint Staffs

USASETAF

LTC Rex E. Dudley, G2
Vicenza, IT 09630
DSN: (314) 634-7423
COMM: 011-39-444-517-423

U.S. Army SPACECOM

LTC Emanuel M. Tornquist
DCSINT
Colorado Springs, CO 80916
DSN: 692-8710/8755
COMM: (719) 554-8710/55

USARJ/9 TAACOM

COL Michael Diver
DCSINT
Camp Zama, JA 96343-0054
DSN: (315) 233-8010
COMM: 011-81-3113-3-8010

USAR Alaska

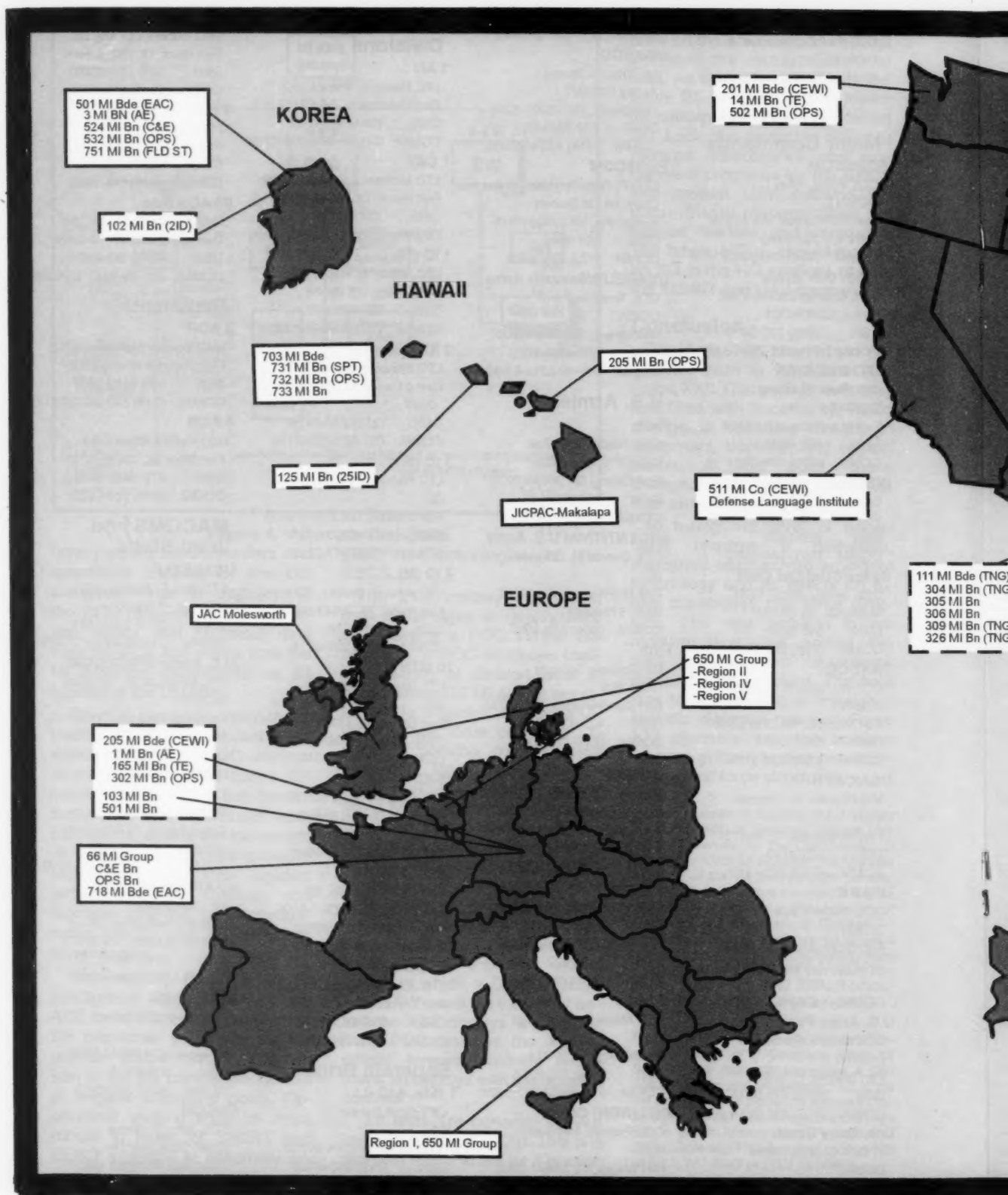
Mr. Skip Stiglich
Senior Intelligence Officer
Fort Richardson, AK 99577
DSN: (317) 384-2208
COMM: (907) 384-2208

229th MI Bn

LTC Jason D. Ploen
CDR
Monterey, CA 93944-5006
DSN: 878-5312
COMM: (408) 242-5312

EUCOM

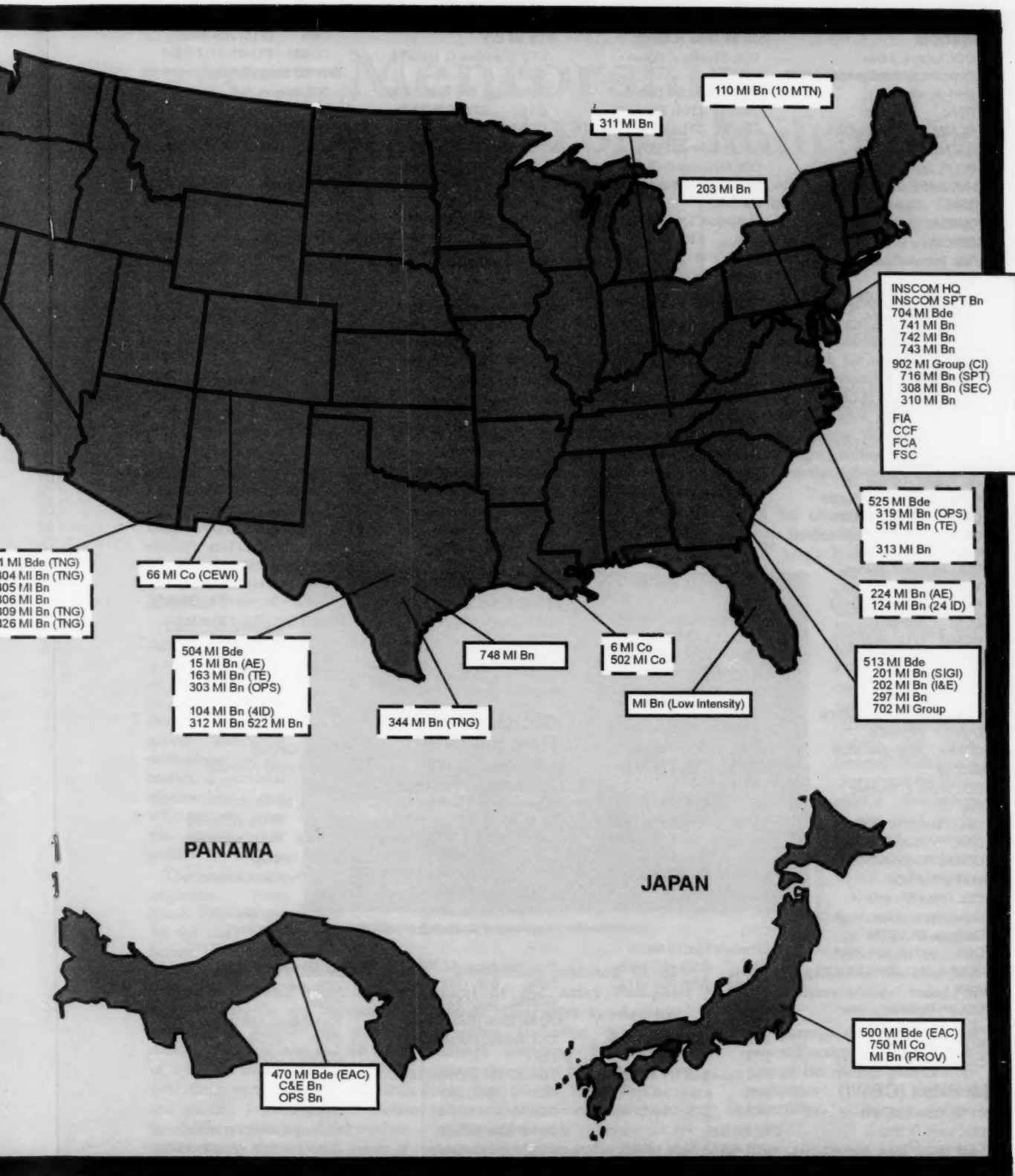
COL John C. Green
Chief, Collection Div.
Patch Bks Stuttgart, GE
09128



Legend:

EAC

ECB



DSN: (314) 430-7312
COMM: 011-49-711-680-7314

USACOM

COL Larry L. Miller
Dep. Dir. for Intelligence
Norfolk, VA 23551
DSN: 564-6626
COMM: (804) 444-6626

CENTCOM

BG(P) James C. King, J2
McDill AFB, FL 33621
DSN: 968-6265
COMM: (813) 828-6265

SOCOM

COL Donald R. Faint
SOJ2
McDill AFB, FL 33621-5323
DSN: 966-2144
COMM: (813) 828-2144

TRANSCOM

LTC Susan Rhein
Chief, Plans and System Div
Scott AFB, IL 62225-5357
DSN: 576-1870
COMM: (616) 256-1870

SOUTHCOM

BG Robert Harding, J2
Quarry Heights, PM 34003
DSN: (313) 282-6980
COMM: 011-507-82-6980/3313

NORAD/SPACECOM

COL Joseph M. Blanco
Vice CDR, CIC
Peterson AFB, CO 80914
DSN: 692-8697
COMM: (719) 554-5212

STRATCOM

LTC Thomas Haid
Chief, MCG Branch
Offutt AFB, NE 68113-6200
DSN: 271-4530
COMM: (404) 294-4530

PACOM

COL Bruce L. Meisner
Dep. J2
Camp Smith, HI 98860
DSN: (315) 477-7324
COMM: (808) 477-7324

SHAPE/NATO

COL Robert Roeber
Chief, Assessment, Yugo Cell
Casteau, BE 09705
DSN: (314) 423-3283
COMM: 011-32-6544-3283

USFK

COL(P) Roderick J. Isler
J2
KOR 96205-0028
DSN: (315) 725-6312

MI Bdes (CEWI)

201 MI Bde (CEWI)

COL Larry D. Bruns
CDR
Fort Lewis, WA 96433-5000

DSN: 357-3041/2440
COMM: (206) 967-3041

205 MI Bde (CEWI)

COL Charles J. Green
CDR
Weisbaden, GE 09096
DSN: (314) 337-6681
COMM: 011-49-611-705-5318

504 MI Bde (CEWI)

COL Nicholas P. Grant
Incoming: COL James Marks
CDR
Fort Hood, TX 76544-5080
DSN: 738-1340
COMM: (817) 288-1340

525 MI Bde (CEWI)

COL Keith B. Alexander
CDR
Fort Bragg, NC 28307-5000
DSN: 326-3209/6084
COMM: (919) 396-3209

MI Battalions (DIV)

102 MI Bn

LTC Debra Beckworth
Incoming: LTC Henry O'Brien
CDR
Camp Essayons, KOR 96257
DSN: (315) 732-6577
COMM: 011-822-730-5301

103 MI Bn

LTC Kenneth H. Boll
Incoming: LTC McCarl
CDR
Fort Stewart, GA 31314-5000
DSN: 870-8222
COMM: (912) 767-8222

104 MI Bn

LTC Steven L. Campbell
CDR
Fort Hood, TX 76546-5200
DSN: 738-3910
COMM: (817) 288-3910

110 MI Bn

LTC Charles F. Sardo
Incoming: LTC Keller, CDR
Fort Drum, NY 13602-5240
DSN: 341-8086/88
COMM: (315) 772-8086/88

125 MI Bn

LTC Kent Thew
CDR
Schofield Bks, HI 96587
DSN: (315) 455-4916
COMM: (808) 655-4916

311 MI Bn

LTC Steve Loving
Incoming: LTC Pat McNiece
CDR
Fort Campbell, KY 42223
DSN: 635-5554
COMM: (502) 798-5554

312 MI Bn

LTC Patrick Neky, CDR
Fort Hood, TX 76545-5128

DSN: 738-7900
COMM: (817) 288-7900

313 MI Bn

LTC Theodore C. Nichols
CDR
Fort Bragg, NC 28307-5100
DSN: 239-1635/8500
COMM: (919) 432-1635

501 MI Bn

LTC Kevin D. Johnson
CDR
Dexheim, GE 09026
DSN: (314) 334-5755
COMM: 011-49-61-336-9867

Sep MI Companies

6 MI Co

CPT Michael Chinn, CDR
Fort Wainwright, AK 99703
DSN: (317) 353-9671
COMM: (907) 353-9671

66 MI Co (CEWI)

MAJ Stuart E. Deakin
CDR
Fort Bliss, TX 79916
DSN: 978-3006
COMM: (915) 568-3006

502 MI Co

CPT William J. Cojocar
CDR
Fort Polk, LA 71459
DSN: 863-0779
COMM: (318) 531-0779

511 MI Co (CEWI)

CPT John D. Hardy
CDR
Fort Irwin, CA 92310
DSN: 470-3921
COMM: (619) 380-3921

Groups/Brigades/ Field Stations

66 MI Group (EAC)

COL Steven J. Argersinger
Incoming: LTC Barbara Fast
CDR
Augsburg, GE 09178
DSN: (305) 435-6611
COMM: 011-49-821-540-6611

111 MI Bde (TNG)

COL Norman Williamson
Incoming: COL Medford
CDR
Fort Huachuca, AZ 85613
DSN: 821-1154
COMM: (520) 533-1154

470 MI Bde (EAC)

COL Ronald Burgess, Jr.
CDR
Corozal, PM 34004-5000
DSN: (313) 285-5966
COMM: 011-507-85-5966

500 MI Bde (EAC)

COL Martin G. Kloster
Incoming: COL Jer Get (6/96)

CDR
Camp Zama, JA 96343-0091
DSN: (315) 263-3986
COMM: 011-81-3117-6338

501 MI Bde (EAC)

COL Wayne Hall
CDR
Yongsan, KOR 96301-0055
DSN: (315) 723-1101
COMM: 011-822-723-1101

513 MI Bde

COL Walter V. Walsh, Jr.
CDR
Fort Gordon, GA 30905-5298
DSN: 780-3091
COMM: (706) 791-7981

703 MI Bde

COL Robert R. Murfin
CDR
Schofield Bks, HI 96857
DSN: (315) 455-3301
COMM: (808) 655-3301

704 MI Bde

COL Jerry A. Demoney
CDR
Fort Meade, MD 20755-5930
DSN: 923-6247
COMM: (301) 677-6247

718 MI Bde (EAC)

COL Ronald N. Lee
CDR
Bad Aibling, GE 09098
DSN: (314) 441-5966
COMM: 011-49-8061-385966

751 MI Bn (Field Station)

LTC Clyde Harthcock
CDR
Camp Humphreys, KOR
96271-0161
DSN: (315) 753-3091
COMM: 011-822-753-3091

650 MI Group

COL Donald Woolfolk
CDR
Shape, BE 09705
DSN: (314) 423-4598
COMM: 011-32-65-4598

702 MI Group

COL George J. Sallaberry
CDR
Fort Gordon, GA 30905
DSN: 780-9176
COMM: (706) 791-9176

902 MI Group (CI)

COL John E. Swift, III
CDR
Fort Meade, MD 20755-5910
DSN: 923-6991
COMM: (301) 677-6991

JICPAC

COL Jeffrey E. Burton
Dep CDR
Makalapa, HI 96860-7450
DSN: (315) 474-8390/9192
COMM: (808) 474-8390/9192

Mentorship:

A Personal and Force Multiplier

by Lieutenant Colonel (P)
Barbara G. Fast

Most of us have our own ideas of what a mentor is. For some, it is an individual who has been influential in our lives. Perhaps it was a coach, a teacher, or a military leader. For others, it may be a vision of a general officer or a sergeant major who brings favorite or "chosen" subordinates up through the ranks, helping them gain promotions and the "good jobs." The purpose of this article is to define mentorship, look at two types of mentoring, and explore the applicability of mentorship to military intelligence (MI) officers, non-commissioned officers (NCOs) soldiers, and civilians.

What is a Mentor?

The dictionary defines a mentor as a *trusted counselor or guide*. A mentor is generally an influential, experienced individual with whom you establish a personal relationship and who actively helps you reach your goals.

The term mentor originates from Greek mythology. As the story goes, before departing for the Trojan Wars, Homer's Odysseus asked a trusted friend, Mentor, to watch over his son, Telemachus. Mentor was actually the goddess Athena, who had assumed the form of a human. Mentor personally took over the responsibility of educating and guiding Telemachus into adulthood. The mentorship of Telemachus lasted during the ten-year siege of Troy and throughout the next ten

years, the time it took to Odysseus to journey home.

Mentorship in the military has enjoyed mixed success as leaders and institutions have struggled to define and formalize it. In 1985, General John C. Wickham, Jr., then Chief of Staff of the Army, published a White Paper which designated "Leadership" as the Army Theme of the Year. In the paper, he outlined eight precepts which establish a framework for building more effective leaders and for individual action. The first precept challenged every leader to be a mentor to subordinate soldiers. The idea is that sharing your knowledge and leadership is the greatest legacy that you can leave to your subordinates and the Army.

Mentors can be superiors once removed from the subordinate. Their jobs are to assess these young leaders potential and develop their capabilities and a frame of reference for the future.

There is another place in the Army which mentions mentorship. The Officer Evaluation Record (OER) has a designated block for raters to grade the officer on mentoring subordinates. The description of mentoring in the OER seems more closely aligned to General Wickham's idea of mentoring—guiding and leading subordinates throughout the mentor's career.

With the exception of the brief mentions in the OER, **Department of the Army Pamphlet 600-80**, and the documents referred to in Lieutenant Colonel Rosello's article beginning on page 36, there are no thorough descriptions of mentorship in any official Army publication. So with General Wickham's charge and the Pamphlet's description as our start point, we will examine mentorship and see how it applies to us.

Kathy Kram of Boston University is one of the foremost authorities on the subject of mentorship. She cites four common characteristics found in mentorship:

- ☐ The protégé can freely discuss personal and professional dilemmas as the mentor provides opportunities for gaining knowledge, skills and competence.
- ☐ Both participants gain from the relationship.



Both participants gain from a mentoring relationship.

Subsequently published, **Department of the Army Pamphlet 600-80, Executive Leadership**,¹ describes leadership development through mentoring. The Pamphlet places mentorship in a different context than did the White Paper: "A process used to develop the thinking skills and frames of reference for sequential and progressive leader development."

- The relationship occurs in an organizational context that greatly influences when and how it unfolds.
- Perhaps most importantly, this kind of relationship is not readily available to most of the people in the organization.²

So, what does a mentor look like? A mentor, in the traditional sense, is usually 8- to 15-years older than the protégé. Translated to the military, it means someone who is at least two ranks senior. Normally, mentors are successful and upwardly mobile, enjoying high rank or position in the organization or Army. They are respected by their peers and possess the requisite knowledge of the Army and maintain a network of resources. They are often consulted by others. Mentors who meet these criteria are not threatened by their protégés' potential to equal or surpass them in their career. Finally, these individuals are generally consistent in their lifestyle.

Mentor-protégé relationships are geared toward the longer term. This permits true development of the protégé. The mentor works with the protégé to set career and personal objectives and strategies for the future. Working together, they develop a career path which incorporates schooling, assignments, professional development, and how to balance a career with one's personal life.

Aspects of Mentorship

There are two aspects to mentorship: career and psychological. Each relationship is a little different and may encompass only one aspect, both or parts of the two.

The career aspect of mentorship involves sponsorship of the protégé. The mentor provides the protégé exposure and visibility. This might be through mentioning the protégé in conversation with other senior leaders, by involving the protégé in brief-

ings and meetings, or allowing the protégé to accompany the mentor to field sites, conferences, and other events.

Mentors help their protégés find challenging assignments which will allow them to progress in their careers. Most mentors are in a position to know what type of assignments are right in terms of career and personal growth. It should be made clear that Army leaders are not in the business of doling out the best jobs to a selected few and ensuring promotions for their protégés. The individual's employment performance and demonstrated potential as written up in the formal evaluation are the basis of the promotion, not the mentor. Where mentors play an influential role is in helping their protégés help themselves to succeed, not in causing success.



The protégé must be able to openly discuss concerns or issues with the mentor.

Throughout the relationship, the mentor coaches the protégé. The mentor provides advice and constructive criticism, working to maximize the protégé's strengths and minimize weaknesses. Some of this is done through sharing experiences, but frank and honest discussions and observations are at the heart of the relationship.

The second aspect of mentorship, the psychological one, consists of role modeling, counseling, friendship, and acceptance and confirmation of the protégé. Mentors lead their protégés, not just professionally but also personally. The mentor lets the protégé see how they lead and make decisions. Mentors impart val-

ues, moral and ethical responsibilities, and standards of conduct by which they live. The relationship is one without fear—that is, the protégé can openly discuss concerns or issues with the mentor knowing that the relationship will not terminate because of what has been shared. It is in this relationship that the pair may establish the greatest bond.

It should now be apparent that there are differences between being a leader and being a mentor. Most of us will be leaders at one time or another. Leaders develop, coach, advise, and motivate subordinates as a routine part of their duties. This is part of normal professional development and should not be confused with mentorship. The rater-rate relationship is an example of this type of leadership. There may be the special chemistry that is found in a formal mentoring relationship; this type of leader role may only last for the duration of the rated individual's assignment.

Finding a Mentor

You are now armed with the knowledge of what a mentor is—so how do you find one? Is there a Central Issue Facility or a 1-800 number? This is the hard part because most of us have not hung around in circles where these leaders hang their hats and

do not know a successful senior leader well enough to make an approach.

Before you begin your search, there is a little homework you need to do. First, you must understand your needs. You must be sure that you even need a mentor. Many of the successful people with whom I have spoken did not feel that they ever had a formal mentor. Rather, they had various role models and senior leaders who provided advice and perhaps someone in whom they could confide at various points in their careers. Maybe a mentor is not for you.

A self-assessment is definitely in order. You must understand your ob-

Photo by Eli Whitney

jectives and how you plan to accomplish them. Think out the future. Come to grips with what you hope to gain from being mentored. It is something you and a mentor will need to agree on to ensure all aspects of the relationship are synchronized.

Finally, you must figure out what price you are willing to pay. There will be expectations on the part of the mentor. Are you willing to live up to them?

Most mentors will do a similar assessment on potential protégés. They look to see if the individual is properly motivated and goal-oriented. If the individual is not willing to seek challenging assignments or greater responsibility, the potential protégé probably will not pass muster. Mentors are looking for junior leaders who show the mark (maybe at this time just a glimmer) of success and probably would not spend time and energy on individuals who are not career- or goal-oriented.

Once your self-assessment is complete, the next step is to identify and get a mentor to accept you as a protégé. Many professionals believe that it is incumbent on the prospective protégé to find and initiate a relationship with a mentor. While this might be so a majority of the time, it seems to me that there are also many occasions where the senior leader finds the protégé. Still, you should not count on being discovered.

You must take an active role in finding a mentor. If you do not have someone in mind already, you need to study the prospects. Once you have someone in mind, your next challenge is getting your candidate to sign on. Although your own personal style will dictate your approach, there are several possible techniques:

- ☐ You might decide to call your candidate about a specific issue.
 - ☐ You might use a "go between" or perhaps get a referral from someone closer to your candidate mentor.
 - ☐ If you are available, you might offer to join a team, project, or solve a problem that involves the mentor.
 - ☐ You might even call for an interview.
- ☐ If you are not ready for a relationship now, but think you might be in the future, you can periodically provide updates on what you are doing.³

As you can see, the key is getting your prospective mentor to recognize you and to sign up to the mentor role. At no time should you ever use the word "mentor" in your discussions—this type of relationship evolves without an official stamp. The supply of prospective protégés greatly outnumbers the available mentors, so you must place yourself in the path of opportunity rather than waiting for the mentor to discover you.

Being a Protégé

There is no perfect mentor. You have to discover the one that is right for you. Also, mentorship is not necessarily a lifelong proposition. The relationship may only last for three to four years or it might last for the duration of both your and your mentor's career. It all depends on the dynamics of the relationship, your needs, and the willingness of the mentor to continue to work with you.

There are also some "down sides" to mentorship. There may be a perception on the part of your peers or subordinates that you are receiving preferential treatment. There can be additional challenges in this regard with cross-gender mentoring relationships. Also, mentor-protégé relationships evolve over time and can terminate with negative feelings or unfulfilled expectations on the part of one or both parties.

Earlier in the paper, we discussed the differences between a mentor and a leader or coach. The majority of us will not ever have a formal mentor. What we do need is someone to act as an advisor, role model, or coach. This is more along the lines of what General Wickham seems to have meant in his White Paper.

Mentorship in MI

The need for working with subordinates to professionally and personally develop them is particularly important in MI. Our career field does not have a singular career pattern for success. We have multiple

specialty areas which collectively create the field of MI; each offers different operational and leadership opportunities. The types of jobs in which we will serve vary greatly in scope and the types of knowledge required. A senior MI leader can be highly beneficial in helping us sort through our personal professional development needs and working to establish career and personal goals. It is even more critical to have a coach in certain assignments, such as a battalion S2 who operates outside the sanctuary of an MI unit. Here, where individuals are normally more junior yet have significant responsibility, a coach can be instrumental to the success of both the individual and the operation as a whole.

The uncertainties encountered in today's Army, especially in terms of downsizing and career potential, weigh heavily on many of us. We undergo much soul-searching in making career decisions. Having trusted senior leaders who can help guide subordinates through this thought process by virtue of their knowledge, network of resources, and sound, objective advice is more important than ever.

Conclusion

Leading and mentoring will be more important than ever as we prepare our soldiers, NCOs, and officers for the Army of the 21st century. The complexities, shortened decision cycles, and demands placed on the intelligence community will increase the role for senior leaders in shaping junior leaders and contribute to their success. Even though technology allows us to provide unprecedented intelligence support, the ability to think critically, analyze, synchronize, and synthesize—all higher-level skills—is imperative to Force XXI success. These skills must still be coupled with the ability to lead and operate more independently in flattened networks and organizations. Ours is a complex business. Professional, family, and personal demands and goals must be in harmony. This is truly a significant role for senior leaders in guiding subordinates into the next century.

What we really need in MI, and in the Army as a whole, is an overall undertaking by senior leaders to help "cultivate" our junior leaders. This movement encompasses short- and long-term professional development coaching and guiding. The effort will yield dividends for the subordinate, the senior leader, and the Army. The linkage that results from these types of relationships creates a stronger bond—proving the old adage that two are stronger than one. Beyond the individual strengths, we will ultimately find that the MI Branch and the Army are stronger as a result.

The legacy that senior leaders leave is the future leader, not a list of mission accomplishments.

The impetus to get this "less formal" mentorship program into place must start with our most senior MI leaders: the general officers, brigade commanders, and the senior command sergeants major. From the top, it must be clear that mentoring, coaching, and professionally devel-

oping our junior leaders is the most important thing we do. Leaders' responsibilities to coach and mentor should become part of any new officer or NCO evaluation report form. The legacy that senior leaders leave is the development of future leaders, not a list of mission accomplishments.

So while the idea of formal mentorship is one which has great merit, the greater applicability to the force is the "informal mentorship" relationship. Junior leaders can and should continue to seek mentors if they decide they need or want one. However, whether this relationship develops will be a function of chemistry and the willingness of a mentor candidate to take on a protégé. We should not institutionalize this type of mentorship.

It is "informal mentoring"—coaching and guiding—that can and should be institutionalized and made a part of our duties and responsibilities as senior leaders. For you junior

leaders—do not wait! Put yourself in the path of opportunity. Seek out a trusted or admired leader (it might even be a peer) who can make a difference. You, ultimately, are in charge of yourself.

Endnotes

1. Department of the Army Pamphlet 600-80, **Executive Leadership** (Washington, D.C.: Department of the Army, 19 June 1987) 49.
2. Kathy E. Kram, **Mentoring at Work: Developing Relationships in Organizational Life** (Glenview, IL: Scott, Freeman, and Company, 1985) 1-2.
3. Howard and William Hendricks, **As Iron Sharpens** (Chicago, IL: Moody Press, 1995) 89-94.

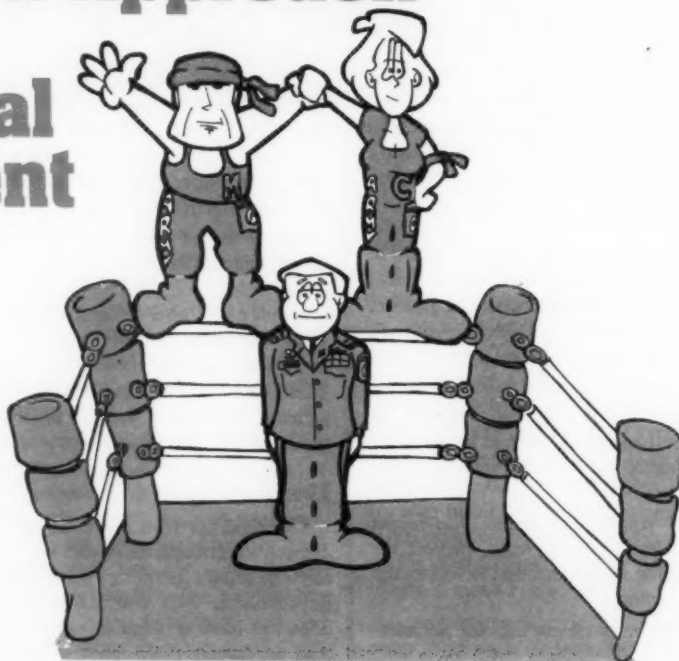
Lieutenant Colonel (P) Barbara G. Fast graduated in June 1996 from the Army War College. She will assume command of the 66th MI Group in Augsburg, Germany, in July. Her most recent assignments were as the Commander, 163d MI Battalion (TE), and the G2, 2d Armored Division at Fort Hood, Texas. She is a graduate of the University of Missouri with degrees in German, Spanish, and Education, and she holds a Master of Science and Business Administration from Boston University.

Mentoring and Counseling: A Tag-Team Approach to Professional Development

by Lieutenant Colonel (P)
Victor M. Rosello

By strict definition, I have never been formally mentored. However, throughout my career many senior officers have counseled and advised me on personal and professional matters related to military schools, key and essential jobs, and future duty assignments. Are formal mentoring and counseling two distinct or mutually exclusive activities?

Not necessarily. I really think that within the established framework of



performance counseling a "mentoring-like" process is alive in today's Army. However, because doctrinal or regulatory guidance is lacking, we do not execute formal mentorship. Consequently, mentorship within the ranks does not meet the true test of formal mentoring.

"Formal mentoring" (as described in Lieutenant Colonel Fast's article beginning on page 33) may involve a selection process based on the identification of gifted or talented individuals ultimately resulting in a mentor-protégé relationship. Although the concept has its merits, one concern is that this "exclusive club" borders on elitism or favoritism, particularly if the mentor is currently in the rating scheme. Playing favorites among a group of rated or senior rated officers could foment a demoralizing or even destabilizing command climate—certainly something every good leader avoids.

Fortunately, by regulation raters and first-line supervisors must formally counsel all their subordinates on a monthly or quarterly basis, depending on rank. Granted, formal performance counseling is not mentoring. However, traditionally it has served a mentoring-like function. Many supervisors use performance counseling sessions to not only advise on current job performance, but also to include professional growth and guidance counseling, as stipulated in FM 22-101, **Leadership Counseling**.

These counseling sessions may include the discussion of future career goals that the counseled subordinate should consider. Counseling sessions also afford the opportunity to discuss reenlistment issues with the enlisted subordinate. If queried, most supervisors would describe these aspects of professional guidance as fulfillment of their counseling role in the "informal mentoring" process (as described by Lieutenant Colonel Fast on page 36).



The informal mentoring process should not stop with just career guidance. Taken to a higher level, leaders should view refinement of basic skills or knowledge as the long-term goal of the informal mentoring or counseling process. This is more in line with the intent of **Department of the Army Pamphlet 600-80, Executive Leadership**. In this case, supervisors use their career experiences to develop the thinking skills and frames of reference for sequential and progressive leader development. This distinction is key to understanding the role of informal mentorship and its integration into the counseling process. Therefore, based on this premise (the development of thinking skills), the supervisor can impart the long-term benefits of an informal mentorship process to the subordinate.

Along with thinking skills, sequential and potential leader development gains additional importance when incorporated by the commander into a leader development program. As outlined in FM 25-101, **Battle Focused Training**, supervising and mentoring junior leaders is an integral component of an effective professional development program. Examples also provide ideas for the creation of unit programs. Some areas are worth highlighting because they form the nucleus of basic skill development.

Professional Writing

Throughout my career I have noted some simple techniques and procedures supervisors have devised to better develop their subordinates' thinking skills. One subject that I am particularly fond of promoting during professional growth and guidance counseling is professional writing. Although, professional writing is not a ticket to promotions or school selections, it does promote an improvement in one's self-confidence, discipline, writing skills, and research techniques: all important staff

skills. A worthwhile byproduct of professional writing is individual contribution of thoughts and ideas to central issues important to the future of the Branch. By making such contributions, a military writer is actively involved in his profession. Lastly, the pride and joy experienced from being the author of a published article (or book) is professionally rewarding. I still admire the many young junior officers and enlisted personnel who take this important step early in their careers.

An example of this phenomenon illustrates this point. During one of my tours, I directed all subordinate officers to develop themes for articles that we would ultimately submit for printing in the *Military Intelligence Professional Bulletin (MIPB)*. Although this effort initially met resistance from the subordinates, a push in this direction by the supervisor created the catalyst for potentially flourishing professional military writing careers by the subordinate themselves. To everyone's surprise (and delight) not only were all the articles selected for printing in *MIPB*, but one of the authors later received honorable mention as writer of the year.



Effective Briefing

Some supervisors enhance skill development process by evaluating the ability of subordinates to conduct briefings. Officer and non-commissioned officer (NCO) professional development presentations, blocks of instruction, operations orders, or intelligence briefings are excellent opportunities for evaluating briefing effectiveness and style. Mastery of these abilities further improves essential staff skills. In addition to assessing speaking abilities, the supervisor also evaluates the contents, format, and organization of the briefing, as well as proficiency in use of audiovisual aids, pointers, and training aids. A good critique afterwards rounds out this skill-development process.



Professional Reading

Still yet another approach is a professional reading program. As professionals we cannot know enough about our chosen military profession. An understanding of war through the ages plays an important role in shaping our knowledge base, as well as creating a stronger understanding of military art. Some supervisors even combine reading and writing by assigning book reports of important military writings to subordinates for written and oral presentation. The point being made is that through his experience base, a supervisor can be extremely effective in recommending and assigning selective military books that can shape and influence the subordinate's view of his profession.



Personal Anecdotes

Let me share with you an anecdote that, although personally embarrassing to admit, may serve as a reminder to you of the disadvantages of not being well versed in the military arts. The setting was a round-table discussion in my Command and General Staff College (CGSC) staff group. The topic was military history, specifically Clausewitz's *On War*. Unfortunately, I could not provide any meaningful contributions to the discussions because, quite frankly, I had nothing to contribute. The reason was that I did not possess the historical knowledge base to do so. I am sorry to admit that, prior to CGSC, I did not even know who Clausewitz was. Embarrassing? You bet. What made this event even more irritating was that one of my classmates had taught Clausewitz at West

Point! It was very difficult to compete under those circumstances. My classmates had developed the professional discipline and desire to understand more of the military art and our profession. I vowed that I would never allow this to happen again to me or to any of my subordinates.

Conversely, this same setting can also demonstrate the merits of personal professional development. During the second semester of the CGSC, I was able to offset the awkward situation just described by actively contributing to the block of instruction on unconventional warfare, stability and support operations, and operations other than war. Prior to CGSC, I had developed a professional interest in the guerrilla warfare writings of some celebrated Communist writers: Mao Tse-Tung, Vo Nguyen Giap, Truong Chinh, and Ernesto "Che" Guevara. Out of personal interest, I had studied the written translations of these masters of guerrilla warfare. Now I could discuss matters with some degree of confidence and expertise because I was prepared. Needless to say, because of the knowledge base, my second semester was much more enjoyable than the first.

To make a full circle, four years after the Clausewitz incident, a professional military journal published one of my articles, ironically on Clausewitz. An embarrassing situation created the professional curiosity to learn more of the subject. Quite a turn-around from an initial situation that would have never occurred had a mentorship relationship existed. I have used this example with subordinates many times. The point I am repeating is that an informal mentor or counselor can make a difference by sharing experiences and knowledge to guide subordinates.

Evolution into Formal Mentorship

What happens after the subordinate departs the unit or the supervisor-subordinate relationship ends? If both the mentor and protégé continue to maintain contact for the pur-

pose of obtaining or providing future career guidance or counseling, then it would seem to me that the relationship has metamorphosed. A formal mentorship relationship has now taken root. The obvious distinction, of course, is that there is now no longer a mandatory supervisor-subordinate counseling relationship in effect. Additionally, favoritism does not taint the process. A long-term personal and professional relationship may develop between the two as both parties mutually benefit from the satisfaction of watching the upward mobility and advancement of the protégé. This relationship can grow over the years and could even continue after the mentor has retired from active duty.

Summary



In summary, given specific guidelines, the established framework of formal military counseling can institutionalize an informal mentorship process. Presently, because there is no definitive guidance on the subject, mentorship is the proverbial "different things to different people." If handled under a framework of performance and professional growth and guidance counseling, it could fit the criteria for a mentoring-like process. The intent remains to further develop and prepare the subordinate for future assignments. As the process matures and the protégé departs the command or the subordinate relationship ends, a continuation of this process results in its formalization.

By accepting that the mentorship process can serve as a useful vehicle for developing thinking skills and frames of



The obligatory parameters of performance counseling establish the basis for more refined professional growth and guidance counseling. Although career issues are an essential part of formal guidance counseling, professional growth can be incorporated through various supervisor-initiated programs that key more on the development of basic thinking skills.

Are these procedures difficult to execute? Most certainly! Can they be accomplished? Yes, but it involves a disciplined mentor or counselor willing to spend additional time and energy in the de-

There is no question that these techniques can greatly enhance the informal mentoring process. These methods develop different aspects of professional skills. Some or all can be incorporated within reason. The degree of compliance will vary based on the supervisor's commitment to professional development of subordinates and his own experience. Based on this premise alone it may be realistic and fair to only require senior officers and NCO's to administer informal mentoring. The bottom line, for lack of any regulatory guidelines, is: some or all of these methods may be incorporated to suit the needs of the supervisor.

Do not allow our subordinates to get caught short in the professional development arena.

As we can all appreciate, the competition for promotions in today's Army is fierce. On-the-job experience takes care of some of the requisites for acquiring the venerable title of "tactical and technical proficiency." The other part is a sound process for subordinate development that can help take some of the edge off the competition, as we furnish the guidelines and establish the parameters for arming and infusing our subordinates with honed thinking skills.

Lieutenant Colonel (P) "Vic" Rosello is the G2, 82d Airborne Division, Fort Bragg, North Carolina. Prior to his assignment as G2, he served as the Battalion Commander, 313th MI Battalion, 82d Airborne Division. He served in El Salvador as an intelligence advisor to the Salvadoran Armed Forces and participated in Operations JUST CAUSE and DESERT STORM with the 82d Airborne Division. He has a bachelor's degree from the University of Puerto Rico, a master of arts in Latin American studies from the University of Chicago, and is a graduate of the Army Command and General Staff College and the School of Advanced Military Studies at Fort Leavenworth, Kansas. Readers can reach him at (910) 432-2252, DSN 239-2252, or E-mail rosellov@emh5-bragg.army.mil.

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School Without Walls: IEW Maintenance Training in the Information Age

by Sergeant First Class
Edward F. Turner

The vision of the Army Chief of Staff for the 21st century Army is of—

*a total force **trained** and ready to fight, serving our nation at home and abroad; a strategic force capable of decisive victory, as the cornerstone of readiness, **training** remains the Army's most important peacetime mission.*

To successfully realize this vision, Army training must evolve as outlined in the U.S. Army Training and Doctrine Command's (TRADOC) **Army Training XXI** strategy. This strategy addresses the evolution of unit training within the Warfighter XXI concept and the progression of institutional and self-development training in the companion document, **Warrior XXI**. In support of these training plans, the U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH) has developed the Intelligence Training XXI strategy. To promote the goals of the collective training vision, several initiatives are under way within USAIC&FH which will harness the potential of information technology (IT) and propel intelligence training into the 21st century.

The trainers of the 111th Military Intelligence (MI) Brigade are leading the charge to realize these goals and objectives. Bravo Company, 305th MI Battalion, responsible for intelligence and electronic warfare (IEW) maintenance training USAIC&FH, has

taken on the task of applying IT to enhance its training capabilities for the future. To ensure that IEW maintainers are "ready now" in concert with the Intelligence Training XXI objectives, training initiatives that leverage IT are given top priority. Tremendous progress has been made implementing two of TRADOC's exciting 21st century training initiatives: the evolution of Classroom XXI and "distance learning." This article will take a closer look at how we are approaching IEW maintenance training in the information age.

The information age Army, forecast by Force XXI, will demand fundamental changes in the traditional Army training system. While those changes promise to affect all aspects of Army training in the future, efforts are well under way within USAIC&FH to make dramatic improvements today. The Intelligence Center has embarked on the important job of creating an intelligence structure that will be one with the warfighter and leveraging IT is key to this effort.

IEW Maintenance Training

It is important to take a brief look at the core of current institutional IEW maintenance training before exploring its leading edge initiatives. Bravo Company has the USAIC&FH responsibility in designing, developing, and conducting initial entry training (IET), advanced individual training (AIT), and functional course instruction for Army IEW maintenance personnel in Career Management Field (CMF) 33, De-

partment of Defense civilians, and soldiers of other branches who support Service cryptologic elements. Accomplishing this mission on a daily basis offers some unique challenges.

Conducting both effective and efficient IEW maintenance training in an era of increasingly complex systems and continually decreasing resources is a formidable task. While this problem is common to many fields within the intelligence community, it is particularly acute in IEW maintenance. Institutional maintenance training on many IEW systems is cost-prohibitive due to their extremely low density within the force. Even so, the IEW maintainer must possess the skills required to maintain all of the current systems, ensuring them as to the force, wherever they are assigned.

The IEW maintenance training conducted today focuses on three main areas: basic electronics, high powered workstations, and IEW system troubleshooting. An extensive overview of basic electronics and in-depth workstation maintenance training are the two key building blocks for the IEW maintainer. The IEW system troubleshooting that follows rounds out the educational curriculum. This training strategy provides the best mix of theory and hands-on experience possible within the limited time available. While this training program is getting the job done today, it is all but assured that it will be insufficient for the future.

As stated, the future is one of increasingly complex systems and ever-decreasing resources. The need for more complex training in a resource-constrained environment creates an information gap. Units are already facing this information gap, the difference between training required and training received. Although the current training strategy is sound, it cannot fill this ever-increasing information gap. Recognizing that its current training strategy will not meet the needs of tomorrow, Bravo Company set out to explore ways of closing the information gap. The results of this effort, "Classroom XXI" and our distance learning program, demonstrate the vast potential for IEW maintenance training in the information age.

A Foundation for the Information Age

At Bravo Company, we built our information age initiatives on a solid foundation. The cornerstone of support is provided by USAIC&FH's "Center Without Walls" initiatives. The Center Without Walls applies modern communications means to create more cohesive, total MI teams by promoting increased and improved interaction between all elements in the intelligence community. The total MI team quickly integrates new technological capabilities to maintain a warfighting edge. A subset of these initiatives known as "School Without Walls," is an ongoing effort within USAIC&FH to radically redesign, develop, and provide innovative training services to MI personnel.

The second key piece for the evolution of information age training is the robust IT infrastructure that exists at Fort Huachuca. This key element provides the basic facilities and equipment needed for the functioning of this important training system. This infrastructure supports all of the efforts under the Center Without Walls program. Brigadier General John W. Smith, Deputy Commanding General, USAIC&FH,

lists the need to make USAIC&FH the premiere "School Without Walls" as one of his Intelligence Training XXI training initiatives. The IT infrastructure is the key enabler to making this happen.

Classroom XXI

Classroom XXI is one of the major efforts within Warrior XXI that will lead TRADOC into the 21st century. TRADOC and its Centers are working hard to fully develop this classroom of the future. One of the Center's goals is to improve classroom instruction here at the home of MI. Anticipating a resource-constrained environment and appreciating the potential offered by IT, we set out to create a prototype 21st century classroom featuring information age technology. The endeavor will reengineer the classroom of the training institution to capitalize on new training methods and information technologies. Although it may not be the definitive solution, by creating a Classroom XXI laboratory within USAIC&FH we can explore more effective and efficient means of conducting platform instruction by applying emerging techniques and technologies.

Bravo Company's Classroom XXI Training Laboratory is comprised of a core and three main elements (see Figure 1). The core consists of lesson plans converted to hypertext markup lan-

guage (HTML) distributed via an "Intranet" Web server over a local area network (LAN). The three main elements of the laboratory are—

- ☐ Podium-top computer access to the on-line lesson plans.
- ☐ Advanced assistant instructor and visitor positions.
- ☐ Totally electronic slide presentations.

Classroom XXI has also been supplemented with the recent addition of the "Barracks Link," which can extend the "long arm of learning" into the student living quarters.

HTML Lesson Plans. The most vital part of the design of this classroom was the creation of its core HTML lesson plans. The Computer Maintenance Section (CMS), responsible for High Powered Workstation (HPW) maintenance training within Bravo Company, was chosen as the test-bed for the project. Since none existed, the first step was to develop a HTML format for lesson plans. With a format in hand, the three-month process began to convert all of the CMS lesson plans to HTML. When completed, more than 40 separate lessons, consisting of hundreds of pages, had been produced for the project. Assigned soldiers and civilians did all the work. With the entire HPW course available to the instructor over an internal network, CMS was now ready to take advantage of its state-of-the-

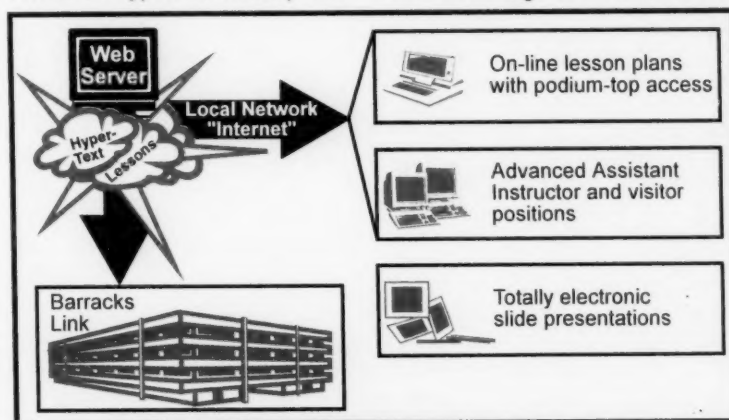


Figure 1. Classroom XXI Training Laboratory.

art classroom. Classroom XXI had come to life.

The HTML lesson plan core of Classroom XXI enables any instructor within the section to access lesson plans on-line. However, there are also many additional benefits provided by the classroom configuration. Instructors can rapidly update these on-line lessons in real time and the lessons are readily available to all consumers. Another benefit resulting from on-line lessons is the elimination of most publication costs. There is no need to print volumes of hard-copy lessons. Additional benefits will also be realized in the future. For instance, training managers, developers and even students, will also have on-line access to these training materials. The increase in administrative efficiency and training effectiveness is obvious across the board.

Podium-top Lesson Plan Access. A primary feature of the Classroom XXI suite draws directly from the HTML lesson plan core. It is podium-top access to on-line lesson plans. This low-cost solution gets the lesson plans from the LAN to the instructor's fingertips in the classroom. A lap-top computer placed on top of the instructor's podium provides lesson plan access. This computer, connected to the instructor LAN, directly accesses the appropriate HTML lesson plan using Web browser software, such as Netscape. The instructor simply moves through the lessons with a click of the mouse. Additionally, the instructor is not limited to lesson plans alone. The Computer Maintenance Section is able to place a wealth of related information on its Web server. All of this information is just a mouse-click away from the instructor on the platform.

Advanced Assistant Instructor and Visitor Positions. The second key element of the Classroom XXI training laboratory is advanced assistant instructor and visitor positions. This element also draws directly from the

HTML lesson plan core. The advanced assistant instructor (AI) position is a computer that provides LAN access independent of the primary instructor's. The AI can access all the information available to the instructor, without disrupting the ongoing training. The AI can read ahead or review recently covered material. With appropriate permission, the AI could even be updating lessons on the fly. This second independent information-access point, the advanced AI position, greatly enhances the training environment.

LINK33 is a World Wide Web server accessible anywhere in the world via the commercial Internet

The visitor position is also a part of the second element. In a traditional classroom, a hard copy of all the courseware is in the classroom for training evaluators and other visitors to review. This is called the "visitor folder." Depending on the particular lesson, a visitor folder could easily be a thousand pages or more. The Classroom XXI suite does away with this huge expense. A separate monitor, connected to the instructor's computer, is in the back of the classroom. This simple device allows a training manager to follow along with the primary instructor without flipping a single page. The costs saved by this simple solution should prove significant.

Totally Electronic Slide Presentations. The final element of the Classroom XXI implementation is totally electronic slide presentations. This element also promises to be a dramatic cost saver. It is estimated that the traditional acetate slide produced for overhead projectors cost approximately one dollar each. With each block of instruction consisting of one hundred or more slides, the costs add up quickly. The goal of the totally electronic slide presen-

tation is to never produce another hard-copy slide. Electronic slide presentations consist of computer-based slide presentations, such as ones made with Microsoft PowerPoint, projected electronically from a floppy disk. The projectors that facilitate this are not cheap, but eliminating hard-copy slides quickly recaptures their cost.

The recent addition of the "Barracks Link" has worked to supplement Classroom XXI efforts. The barracks link consists of a computer lab in their AIT student barracks. While it is not yet possible, the design goal is to have most of the instructional material available, via the Internet, to the students in the barracks. The benefit of this is twofold. First, the student gets hands-on experience accessing vital information through the network, a skill crucial to the field soldier of the future. Second, the students have access to information they can review at their own pace. The student can cover missed material or "read up" on the next day's lesson. The initial implementation of the barracks link has proven to be wildly popular. The dividends it will pay more than justify the costs involved.

As stated earlier, Classroom XXI is an ongoing effort and we learn valuable lessons from our training laboratory every day. We continue to refine it wherever and whenever possible. The Classroom XXI suite developed is not the perfect solution for everyone, but it has demonstrated a potential and has increased instructor efficiency. Classroom XXI has definitely been a step in the right direction.

Distance Learning

With USAIC&FH striving to become the premiere "School Without Walls," one area of concentration is increasing our support to the IEW maintainer in the field. Fulfilling this need is the driving force behind the second major training initiative, distance

learning. As is stated in Warrior XXI documentation,

Distance learning is not a discrete technology but incorporates a number of emerging technologies to move distributed learning from the realm of the possible to that of the practical.

To this end, we developed a practical solution called "LINK33."

LINK33 is a World Wide Web server accessible anywhere in the world via the commercial Internet. It is an interactive electronic maintenance home page designed to link the worldwide, joint Service, electronic maintenance community. While many organizations are using the Internet as a distribution source for information, LINK33 is going beyond the one way flow of information. Many aspects of LINK33 offer "interactivity" to the user. There are areas, such as the electronic help desk, by which the maintainer in the field can interact directly with institutional trainers possessing a wealth of resident knowledge that is available at USAIC&FH. LINK33's design facilitates the complete flow of information to and from the field. Internet access to LINK33 is through the uniform resource locator (URL) inside the brackets, <http://huachuca-link33.army.mil>. The name LINK33 comes from CMF 33, Electronic Warfare and Intelligence Systems Maintenance.

The information provided by LINK33 will reduce the costs associated with training, simplify the introduction of new systems and doctrine, fill training gaps and help satisfy force structure requirements. The LINK33 service provides a wealth of IEW maintenance information directly to the maintainer in the field. Basic electronics information and courseware is available, as well as maintenance and self-study information for HPWs. The link provides information on all facets of CMF 33 IET training and for many functional courses. LINK33 also provides maintenance, training, and general information for many

IEW systems such as the All-Source Analysis System (ASAS) and TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) II. LINK33 directly addresses many of the challenges of leveraging information technology to improve training.

Providing information on the commercial Internet is inherently nonsecure. With that in mind, no information goes on LINK33 unless it falls in the realm of "approved for public release." Of course there is a need to provide information that is sensitive or even classified to the field. We are addressing this need through the creation of a duplicate LINK33 service on the Secret Internet Protocol Routing Network (SIPRNET). This will allow provision of information up to the SECRET level within a secure environment.

It is important to note that there are two methods of distributing learning: synchronous and asynchronous. The synchronous mode deals with the real-time delivery of training. While highly valuable, it is inherently complex, expensive, and time-intensive. Conversely, the asynchronous mode deals with retrievable training that is without time constraints. The LINK33 distance learning initiative concentrates on delivering asynchronous distance learning. This limitation greatly reduces the costs associated with implementation, yet can still meet many of the needs of the maintainer in the field. Like Classroom XXI, LINK33 is an ongoing effort. Bravo Company will continue to develop LINK33 so that it can become the definitive electronic maintenance information resource available anywhere within the Department of Defense.

Future Advances

We are evaluating continuous advancements to expand our ability to provide training when and where needed. Additional advancements are undergoing test to increase the interactivity with maintainers in the field. Work

continues to mature on what Bravo Company has termed "distance assistance." Distance assistance will continue to close the information gap. It will also work to bring the classroom to the battlefield and vice versa. As Classroom XXI and distance learning continue to develop, they begin to meld, working to create a true Warrior XXI training environment. Distance assistance will be a key part of that environment.

One promising distance assistance technology we are incorporating into LINK33 is limited desktop video conferencing. USAIC&FH has already successfully tested a very inexpensive solution that allowed maintainers at Fort Lewis, Washington, to interact with personnel at USAIC&FH over the Internet. This solution offers interactivity using video, audio, and a shared "John Madden" white board. In much the same fashion that the Army's medical field is experimenting with tele-maintenance, so, also is Bravo Company experimenting with tele-maintenance. This technology, and many others, promise to increase both the usability and viability of the LINK33 service and other information age training initiatives.

USAIC&FH continues to explore all avenues of IT as it seeks to improve maintenance and other training. The fast-paced training environment posed by Force XXI will place extraordinary demands on all training institutions. The efforts being made today will ensure that maintenance training remains "Always Out Front."

Sergeant First Class Edward F. Turner is an Instructor-Writer assigned to Bravo Company, 305th MI Battalion. He is the primary architect of the Classroom XXI Training Laboratory and the LINK33 Distance Learning projects. He has a bachelor of science degree in Computer Studies from the University of Maryland. Readers can reach him at commercial (520) 538-4753, DSN 879-4753, and E-mail eturner@huachuca-link33.army.mil.

Career Management in MI Today

by Captain John T. Chenery

Today's military intelligence (MI) professionals encounter a wealth of career opportunities. There are numerous avenues and alternatives to achieving their career objectives. We must each assume a leadership role in managing our own careers, thus enabling ourselves to realize these goals.

The purpose of this article is to acquaint you with the United States Total Army Personnel Command (PERSCOM), specifically our "MI Branch." It will also inform you of the career management process, and give you some insight on how to influence this process. It will delve into the roles of the various players in the assignment business: the career manager (CM), the Personnel Service Center (PSC), and you—the soldier and leader. This article will address your opportunities, boards and other important procedures, and methods to contact your CM. The term "MI Branch" throughout this article encompasses the enlisted, warrant, and commissioned officer ranks.

PERSCOM and MI Branch

PERSCOM is at the center of Army career leadership and management. Many of you remember it as MILPERCEN (Military Personnel Center), or simply "DA" (Department of the Army). By whatever name, it is home to all the different MI Branch career managers and a highly professional civilian workforce charged with caring for your career management information files (CMIFs) and directing your many military career moves.

If you are like many of us, you have never considered the career management cycle, or even read the personnel section of the *Army Times*. That "stuff" is for the S1 and the personnel guys.

Most of us do our jobs and go where "the Army" sends us. Well, this attitude is not only unrealistic in MI today—it could be downright hazardous!

PERSCOM and MI Branch Mission. The PERSCOM and MI Branch mission is to assign the right soldier to the right job in the right place at the right time. Further, we advise MI soldiers on their individual career needs. On the enlisted side our mission statement includes—

To get the right soldier with the right grade and skill to the right command at the right time with minimal turbulence and maximum fairness to soldiers and their families.

This means their charter is to support you by making your assignments, assisting you in your professional development, and assisting in preparing officer files for promotion and selection boards. The bottom line is that mission of the CMs is to do what is best for the Army while also adding the common sense and personal touch to the bureauc-

racy of processing personnel transactions. As fellow soldiers, MI Branch professionals take this charter very seriously.

PERSCOM Structure. Beyond the chain of command and structure depicted in Figure 1, there are the unofficial and direct channels. Commanders and G2s at all levels have direct access to the MI Branch Chief and CMs. The "open-door" policy exists for all soldiers. Whether one speaks to a professional development non-commissioned officer (PDNCO), or the assignment officer, the soldier can always make contact with Branch.

MI Branch Facts. To appreciate the mission of these CMs, consider the number of soldiers for which the small handful of CMs are responsible: 23,000 intelligence soldiers in 28 military occupational specialties (MOSs)—11 warrant officer and 17 enlisted MOSs—and 6 areas of concentration (AOC). It can be a formidable task to handle all inquiries directly since they receive hundreds of phone calls and voice-mail, E-mail, and U.S. mail

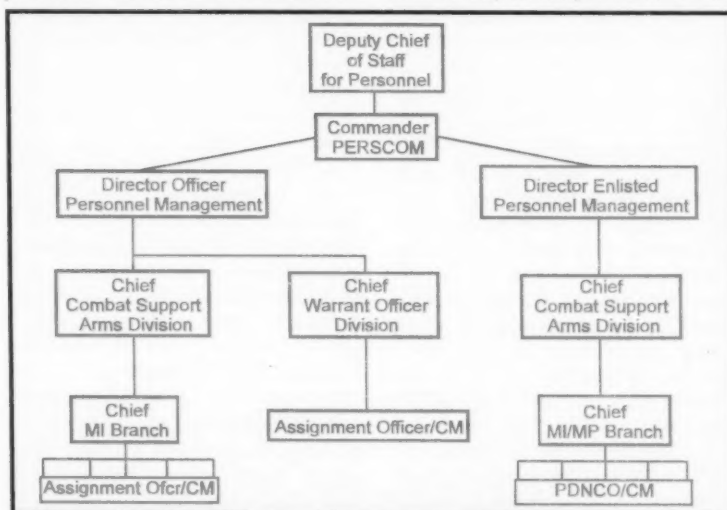


Figure 1. Basic PERSCOM Structure.

messages daily. The CMs' goal is to match individuals to assignments and opportunities, and to benefit both the soldier and the Army.

The Assignment Process

Assignments are first matched to the "needs of the Army." At MI Branch, the guidance is to then "do what is right for the Army." What this means, since *you* are the Army, is that they weigh all the variables and factors involved, with care, compassion, and common sense, but always with an eye focused on the overall mission of the organization.

A primary concern throughout the process is the professional development of the soldier, which encompasses numerous jobs and training requirements at various levels and junctures during the soldier's career. Tour equity (continental United States (CONUS) then outside CONUS (OCONUS), tactical then strategic, and so forth) and getting "branch qualified" at various ranks are also important.

Figure 2 shows many of the variables CMs consider prior to making an assignment. The sheer numbers involved with enlisted soldiers necessitates a modified approach to the process, but the personal touch of the CM is always there.

Understand that the CMs' cyclic process dictates working CONUS rotations six months out, and OCONUS nine months out. Use these numbers as a guide when calling MI Branch; sending the DA Form 483, **Preference Statement**, is the way to achieve the best results. Yes, they really do work.

The Career Manager's Role. The CM's role is to provide that common sense and personal approach to the assignment process. The Branch selects as CM soldiers qualified at their present rank with clear potential for promotion. Remember, it is an MI soldier at the other end of the line who "speaks your language."



Figure 2. Assignment Variables.

They care about you, your career and your family's concerns.

After you have used your chain of command and feel you still have significant issues that cannot be resolved at the local or MACOM levels, contact your CM. These issues may include compassionate reassignments, joint domiciles, and Exceptional Family Member Program issues. A frequently requested, very appropriate use of the CM is to give an officer a candid file assessment prior to a promotion or selection board. This information is available only to you, not to supervisors wishing to screen their soldiers' personnel records. You must call MI Branch to give authorization for the CM to discuss your file with anyone.

The continuity and depth of knowledge at MI Branch rests with the civilian workforce. They provide the level of expertise which is not possible for an assignment officer to develop in a 12- to 24-month tour at a CM desk. The civilians are authorized to provide all the assistance one would receive from a CM, except file assessments and actual assignment approval. Often when your CM puts you on hold to find an answer, that answer comes from the technicians.

Personnel Service Center Role. The administrative functions of file maintenance and per-

sonnel actions are the primary responsibility of the installation PSC. After your unit S1, the PSC is your link to both the Standard Installation Division Personnel System (SIDPERS) and the Total Officer Personnel Management Information System (TOPMIS). The PSC electronically updates your file through this management system. Your local PSC has a better capability to perform administrative updates to your files than does MI Branch, and they are resourced to perform those functions. However, after being notified the board will meet (a few months before the board convenes), initiate direct dialogue with your CM. Also, send a backup photo directly to your CM. Use registered mail so you can be sure it arrived.

Your Role. You must be the leader in your overall career management and become involved in your assignment process. No one is as interested in, or concerned about, your career as you. Be proactive. You can stay abreast of our profession's trends and issues by reading the *Army Times*, *Military Intelligence Professional Bulletin*, *NCO Journal*, *MI Branch Career Notes*, and the recent issues of the *MI Branch Newsletter*, which is now on-line in the Internet. Proactivity also means keeping your records up to date at your local PSC, and ensuring Branch has a current

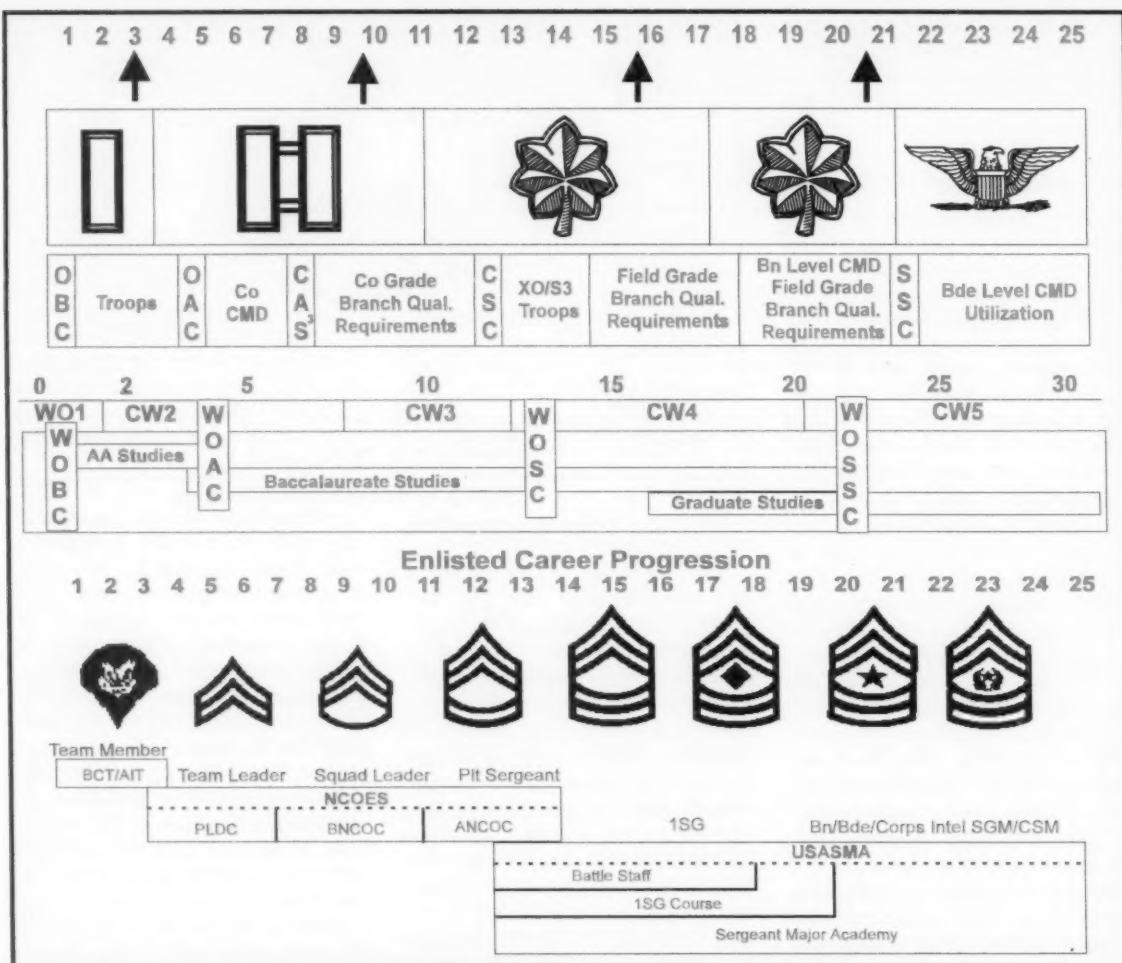


Figure 3. MI Career Progression and Years of Service

photo and DA Form 483 on-hand. As far as selection or promotion boards are concerned, soldiers are responsible for keeping their records current. Leaders need to work with soldiers prior to the CM's promotion board "scrub." Leaders are encouraged to use CMs as sounding boards prior to counseling sessions when planned topics relate to professional development issues and trends.

For officers, it is critical to understand exactly where you fit in your Senior Rater's Profile. Once you receive your officer efficiency report (OER), call your CM to check the profile. If you wait until the board convenes to appeal your OER, it is too late.

Professional Development Opportunities

Numerous opportunities exist for MI soldiers at all rank levels, MOSs, and AOCs. For the latest information on professional development options in your particular MOS, check the latest editions of the *MI Career Notes*, the *MI Branch Newsletter*, and the *Warrant Officer Newsletter*. Then, if you are interested in a program, see your chain of command, and contact your CM or PDNCO if you have any unresolved questions.

Options on the enlisted side are far too numerous to address here. However, the basic plan is to allow the soldier opportunities for a

variety of jobs with increasing levels of responsibility.

Commissioned officers must strive for "Branch qualification" at various grades as they move up throughout their careers in accordance with Department of the Army Pamphlet 600-3, *Commissioned Officer Professional Development and Career Management*. We talk also of "branch competitiveness" which goes a bit further. As an example, company grade officers are "competitive" after both successful company command and service as a unit intelligence officer, primary staff S2.

For warrant officers, there is no formalized branch qualification at each grade. However, to prepare

Frequently Used Addresses and Telephone Numbers

MI Branch

Address:
US PERSCOM
ATTN:TAPC-OPF-M
200 Stovall Street
Alexandria, VA 22332-0145
DSN: 221-0145
COMM: (703) 325-0145
Voice Mail 221-0145
FAX: 221-0144
DDS PROFS: AEDDCIA (TAPCOFPM)
DDN Mail: TAPCOFM@-
HOFFMAN-EMHI.Army.MIL

Record Services Section

US PERSCOM
ATTN: TAPC-MSR-S
200 Stovall Street
Alexandria, VA 22332-0444

Handy DSN

Reference Numbers

Promotions Branch	221-9340
Separations Branch	221-8440
Awards Branch	221-4767
Record Services Branch	221-9612
OER Branch	221-4620
OER Appeals Branch	221-8642
Retirements Branch	221-5706
Education Branch	221-3140
Enlisted	221-5555
Warrant Officer	221-5255

Commercial: (703) 325-xxxx

PERSCOM Online

<http://www-perscom.army.mil>

warrants to become successful Chief Warrant Officers Four and Fives (CW4 and CW5), we must ensure the correct mix of assignments and positions within the MOS at different echelons. Warrant Officers One (WO1s) usually start at the division level and progress through their careers to grade CW5 generally assigned at the major command (MACOM) and joint level.

Boards and Special Actions

Two factors make it extremely difficult for boards to select individuals for schools, special assignments, and promotions—the Army's drawdown and the truly high caliber of soldiers in the Army, and particularly in MI today. In the brief amount of time board members have to review your file, they are looking for that one discriminator; that is, something that

identifies you as not "making the mark." Although that discriminant changes from time to time and from board to board, you can be sure that the board that reviews your records will be consistent and fair. This is a strictly regimented process with extensive oversight, conducted by professional senior leaders from a mix of career fields. The methods used to ensure selection of a soldier for that next move up the chain are clearly established and straight forward. To the board, **your file is you.** It must tell the board in a clear, professional voice, "I am a soldier—select me!" If it conveys that you have served well and faithfully, and your photo shows a true soldier, you should be promoted. It really is that simple.

Contacting MI Branch

Remember, at Branch they are still MI soldiers and are not experts in all Adjutant General functions. However, they will do their best to handle your assignment questions and career-related issues and emergencies.

Procedures. There are several ways to contact a CM. If you do not feel satisfied with one way, try another. They will respond to your inquiry—just remember to allow them time to do so.

E-mail or U.S. mail. This takes minimum time from the CM and they can take it home or answer it from home. It also allows you to compose your thoughts, include all pertinent information, retain a written record of contact, and allows the CM time to consider a complete response.

Voice mail. You can leave it at any hour (provided you are one of the first 30 to get in before it fills up). Definitely make notes on what you are going to say before you call, and **speak slowly and clearly.** A routine message should contain your social security number (SSN); rank; name; commercial work, home, and DSN phone numbers; and a brief summary of the issue.

Telephone. Write down your questions and leave room to jot responses. If the issue could not be resolved at your installation or MACOM, provide your CM names and numbers of the points of contact so he or she can work back through them. Start out with your rank, name, and SSN (so the CM can pull your file up while you talk). Give a concise synopsis of your issue. Remember your Army effective writing class: bottom-line-up-front (BLUF)!

Visits. You should coordinate with your CM if you plan to make a visit to 200 Stovall Street. This allows the CM time to prepare a new officer record brief or **DA Form 2-1**, and to order a new microfiche for you.

Conclusion

MI soldiers today have a great career path ahead. There are numerous routes and junctures along the way, and for those who look ahead and plan accordingly, it will be a full and rewarding career. You should understand the assignment and professional development process, where you are in this process, and how you can influence the system. Soldiers who take the leadership role in their own careers will clearly be "Always out front!"

The author wishes to thank the following individuals for their invaluable assistance with this article: Chief Warrant Officer Four Gerald A. Walters, Master Sergeant John L. Mense, and Master Sergeant James M. Newlan.

Captain Chenery is currently the US Army's Active Component Support to Reserve Component (AC/RC) Distribution Officer, PERSCOM, and was previously the MI Lieutenants' Assignment Officer. During seven years with the 187th Infantry, 101st Airborne Division (Air Assault) Fort Campbell, Kentucky, he served as a brigade and battalion S2, and Headquarters and Headquarters Operations Company Company Team Commander. He is a graduate of the OCS program and has a degree in Criminal Justice from Murray State University, Kentucky. Readers can contact Captain Chenery at (703) 325-0145, DSN 221-0145, and via E-mail at cheneryj@hoffman-emh1.army.mil. Additional information is available through PERSCOM online on the Internet at <http://www-perscom.army.mil>.

Force Projection Intelligence: A Year in Review

by Lieutenant Colonel
Kenneth H. Boll, Jr., and
Major Jeffrey S. Holachek

By just doing what they do every day, U.S. Army divisional military intelligence (MI) units "walk the walk." They exemplify many of the key doctrinal tenets of force projection intelligence and electronic warfare (IEW) operations by demonstrating:

- ☐ Intelligence synchronization.
- ☐ Tactical tailoring.
- ☐ Commanders driving intelligence.
- ☐ Broadcast dissemination.
- ☐ Split-based operations.

From October 1994 through October 1995, the 124th MI Battalion served as the "electronic cavalry" of the 24th Infantry Division (Mechanized) during both contingency deployments to Haiti and Southwest Asia and "routine" deployments to the Army's combat training centers (CTCs) and other training venues. In addition, the Battalion accomplished ancillary tasks—fielding the Army's All-Source Analysis System, (ASAS), the Commander's Tactical Terminal (CTT), the TROJAN SPIRIT II, the AN/TRQ-32A TEAMMATE system, and other intelligence systems. In their spare time, the Battalion staff orchestrated the smooth transition to a new MI battalion MTOE, "standing up" direct support (DS) companies—tactically tailored in garrison to match the way they go to war in support of the maneuver brigades of the Victory Division. Throughout the year, the Battalion achieved success by adhering to the 24th ID (M)'s focus on immediate deployability, individual and unit proficiency, and tactical tailoring. In the course of doing business, the Battalion illustrated the basic principles of our MI doctrine—thus, a review of some of

the highlights in a year in the life of a divisional MI battalion shows, in microcosm, how the MI Corps supports the warfighting commander.

October-November 1994

The principle of intelligence synchronization is demonstrated as a new fiscal year gets underway. The new year finds an MI Battalion HUMINT team deployed to Haiti in support of a mechanized company team from the Division's 3d Battalion, 15th Infantry Brigade as part of Operation UPHOLD DEMOCRACY. As the 2d Brigade commander reviewed his mission of supplying a mechanized punch to the light forces of the 10th Mountain Division, one of the first slice units added to the force package was a counterintel-

ligence team from the 124th MI Battalion—a result of lessons learned from the Brigade's recent Somalia contingency. The Battalion's HUMINT assets, critical to force protection, deploy within 72 hours of notification.

With MI Battalion HUMINT assets already heavily engaged in Haiti, the contingency mission developing in Southwest Asia in mid-October provides a challenge in tactical tailoring. As the Division Ready Brigade (DRB) deploys on Operation VIGILANT WARRIOR to deter Iraqi forces, the MI Battalion, on 48 hours notice, deploys elements of the MI Ready Company (see Figure 1, colored part) with the DRB. A ground surveillance radar (GSR) squad, counterintelligence (CI) team, IPW team, and IEW support element

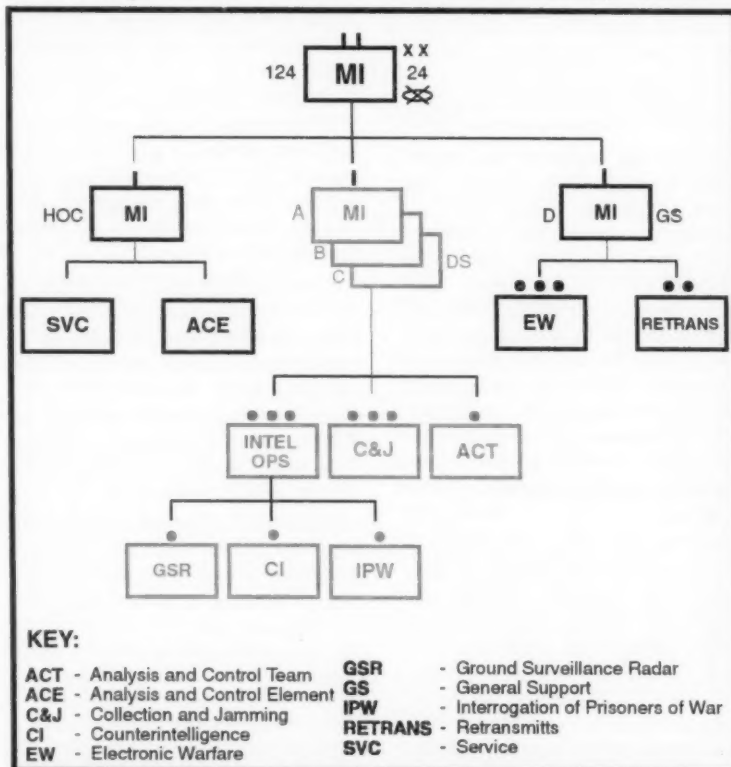


Figure 1. MI Ready Company and 124th MI Battalion Organization.

deploy with the 1st Brigade. The remainder of C Company, primarily SIGINT assets, remains on 6-hour "strip alert" until it is apparent the U.S. mission will change from combat to exercise posture. As part of 1st Brigade, MI Battalion soldiers in Kuwait gain valuable coalition training experience with the Kuwaiti Armed Forces. The Battalion as a whole validates its MI Ready Company force module deployment timelines as part of the Division's deployment standard operating procedures (SOP).

December 1994

From 7 to 9 December, the tactical scenario of 124th MI Battalion IEW Communication and Logistics Exercise (COM-MEX/LOGEX) 95-02 drives Mission Essential Task List (METL) training at Fort Stewart, Georgia. The tasks include deploy and assemble the force and—

- ☐ Conduct IEW operations
- ☐ Support IEW operations
- ☐ Exercise command and control (C²)

The commander's intent is to deploy selected assets, exercise critical datalinks in the battalion's communications structure, and establish the 124th MI Battalion's logistical nodes. Phase 3, Set 1a of the exercise playbook (see figure 2) shows the communications plan. While most of the exercise is a success, the cumbersome net radio protocol (NRP) procedures, necessary to establish UHF datalinks over battlefield distances exceeding 100 kilometers, are judged inadequate for the demands of modern mechanized warfare over doctrinal distances. As a result of lessons learned, the Battalion staff plans future exercises and "work-arounds" for the aging TIGER data relay systems. Since MI doctrine does not address how the TRQ-32 TEAMMATE team can realistically sustain their principal SIGINT collection role while also establishing and manning a TIGER data-relay

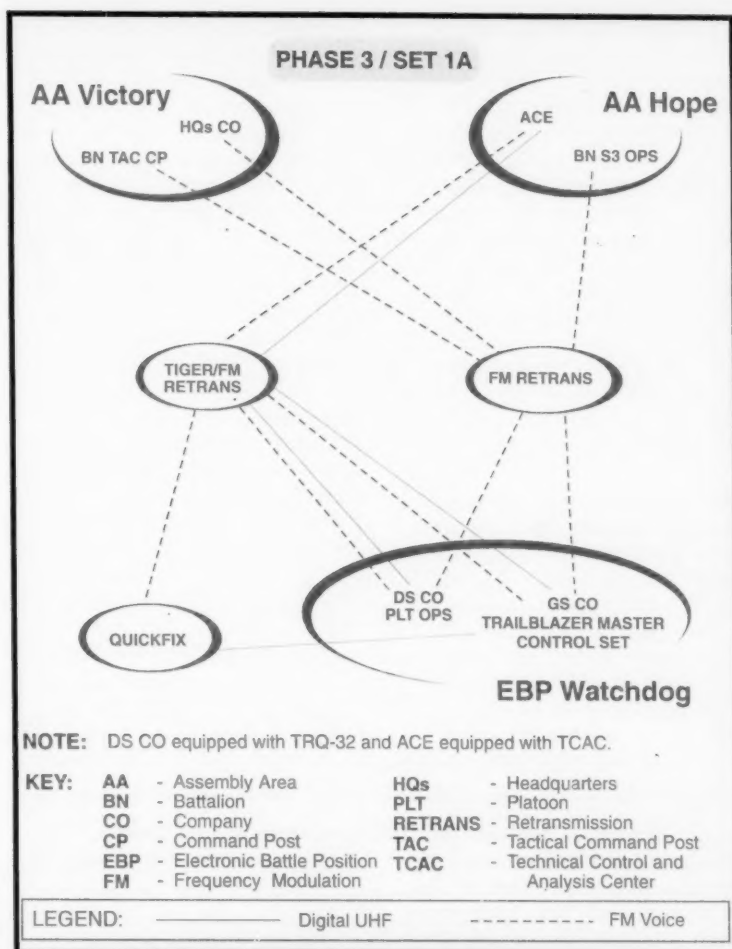


Figure 2. The Battalion communications plan.

kilometers away, the staff begins the search for alternative tactics.

January 1995

On a cold January Mojave Desert night, the company commander of A Company (DS), takes stock of her force dispositions and is reasonably satisfied with the results. Having gauged the OPFOR commander's mind, she estimates the most likely enemy course of action:

"The 60th Motorized Rifle Regiment (MRR) will conduct a meeting battle in advance guard formation. The Regiment's initial objective is the Hill 876 complex. The subsequent objective is East Gate. The Regiment will follow Division recon (251800 Jan) and

Regimental Recon (261800 Jan). I estimate the 121 Motorized Rifle Division (MRD) will conduct an air assault with TF ANGEL at EENT 26 Jan to secure terrain vic NK 4208. TF DESTROYER will infiltrate at EENT 27 Jan to secure terrain vic Hill 780 (NK 4412). This will allow the Regiment to move freely to its objective."

Establishing a TRQ-32 TEAMMATE SIGINT baseline far forward, deploying GSRs consistent with the maneuver task force plans, and readying her TLQ-17AV3 TRAFFICJAM electronic attack assets, the A Company Commander proceeds to execute her operations based on the 2d Brigade Commander's plan.

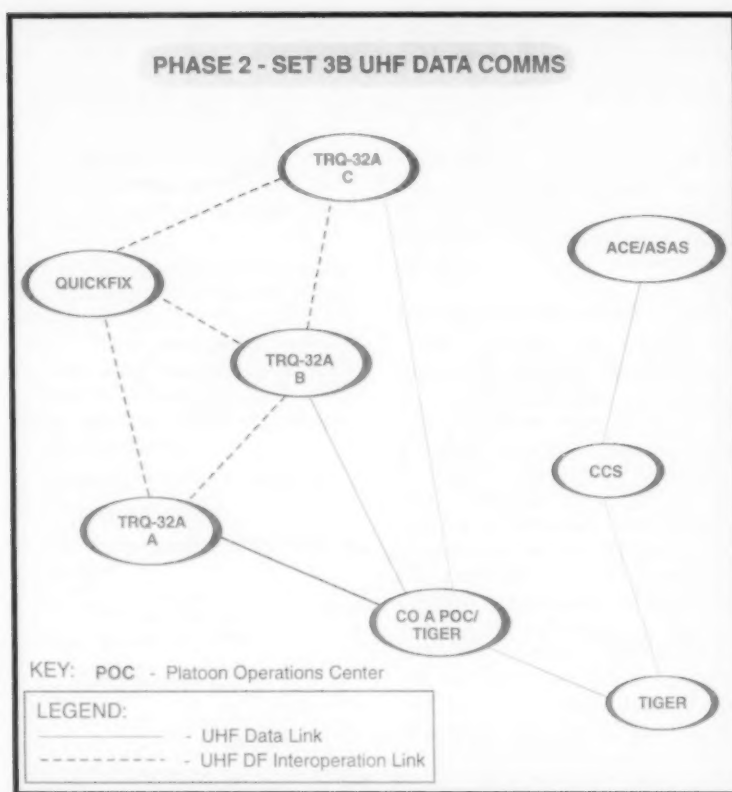


Figure 3. Platoon UHF Data Communications Links.

Throughout the National Training Center's (NTC) Rotation 95-04, the principle that "the commander drives intelligence" will be illustrated as the DS MI Company—

- ☐ Electronically attacks the OPFOR Regiment's battle command frequencies, causing the Regiment to jump frequencies 35 times during one battle—with stations scattered over five different frequencies at one point—and causing the 4th Motorized Rifle Battalion (MRB), piecemealed in the attack due to disrupted communications, to be destroyed in detail.
- ☐ Prevents the OPFOR from reacting to a friendly air assault by consistently identifying the OPFOR's reconnaissance elements, determining their locations through the process of radio direction-finding (DF), and either jamming reconnaissance spot reports or disrupt-

ing operations by applying friendly artillery.

- ☐ Provides combat information that consistently provides the Brigade Commander and staff with the timely and accurate intelligence needed to kill the enemy.

February-March 1995

As A Company redeloys from NTC, the MI Battalion takes on an additional task driven by the principle of broadcast dissemination—at long last, the ASAS is making its appearance at Fort Stewart, Georgia. Despite a training schedule planned for a deliberate fielding, the real world intrudes again as the Battalion Analysis and Control Element (ACE) divides its attention between ASAS training and the Division's rigorous Command Post Exercise (CPX) schedule in preparation for the upcoming Battle Command Training Program

(BCTP) Warfighter exercise. Having foreseen the challenge, the Battalion Commander and the Division G2 provide an exciting solution for the fielding team—instead of a final training week employing a set-piece, Cold War scenario as a culminating exercise, the ACE instead will load a desert scenario into the ASAS database and jump feet-first into the high adventure of an intensive division-level Warfighter preparatory CPX.

Division CPX 95-03 marks the graduation of the ACE into the era of "pull intelligence" and updated broadcast dissemination. Together with the recently-fielded, low-rate initial production CTT, ASAS is completely integrated into intelligence operations. The BCTP Warfighter exercise is now 90 days away and the ACE is "ready now."

April-May 1995

With the fielding of the new TRQ-32A TEAMMATE system, the Battalion moves into a training phase focused on exercising NRP shortfalls identified in previous COMMEs. For the first time, the Battalion's light SIGINT baseline systems, the TRQ-32As, are able to duplicate the heavy TRAILBLAZER baseline's connectivity with QUICKFIX, thus bringing all the SIGINT stations into the same DF net. IEW COMME/LOGEX 95-04 tests the new capabilities from 22 to 25 May, culminating in Set 3B (see Figure 3) from the Battalion's exercise playbook.

At the conclusion of COMME 95-04, the Battalion staff concludes that tactics, techniques, and procedures (TTP) are in place to integrate all the Division's SIGINT assets into a single DF baseline, and then connect that baseline to the Division ACE's Communication Control System (CCS) using the UHF digital datalinks. With the double TIGER relay working in the notoriously difficult forested terrain of Fort Stewart, the staff now is confident the Battalion can maintain con-

nectivity over doctrinal distances of mechanized warfare.

June-July 1995

With the Battalion executive officer and the company commanders "manning the boards" in the Fort Stewart Simulations Center, the BCTP Warfighter Exercise is a stimulating training environment for the MI Battalion. The MI Battalion sends a significant portion of the Battalion tactical operations center (TOC), including the S3, to colocate with the ACE at the division main command post (DMAIN CP). At the TOC, the S3 acts as the single-source asset manager of the Division's organic SIGINT and HUMINT units. Working closely with the Division Collection Manager in the ACE, the S3 overcomes shortcomings noted in lessons learned from the previous Warfighter exercise—during this battle, there is no disconnect between the views of the Collection Manager and the Battalion on asset location and tasking.

Again, using experience gained from previous COMMEs, the Battalion Commander deploys the Battalion Tactical CP (TAC) to a location near the Division's TAC. TERRABASE confirms that this location provides excellent radio line-of-sight with the Battalion EW assets deployed throughout the Brigade areas of operations as well as with the DMAIN. With a TIGER data relay at the BN TAC, the UHF datanet stays up even as the SIGINT assets leapfrog forward with the brigades—more than 100 kilometers in a day.

Despite some close calls, most of the Battalion's collection teams survive the hard-fought battles, as the Heavy OPFOR, with its BMP-3 infantry fighting vehicles, T-80 tanks, and modern artillery contest the Victory Division's advance. One TRAILBLAZER crew, blocked by a bypassed BMP vehicle, narrowly escapes destruction. However, our 1st Brigade Commander, when informed the TRAILBLAZER carries a box of fine cigars meant for him, saves the day by dispatching an Abrams

main battle tank to dispose of the impudent BMP. TRAILBLAZER continues its march forward.

At the end of the intensive simulation, the Battalion staff has exercised its complete METL, having synchronized all actions with the rest of the battlefield operating systems. Even the newly-fielded ASAS equipment posts an admirable maintenance record, overcoming multiple breakdowns in the Software Test and Evaluation System (STEMS) simulation feed.

As an encore to the Warfighter exercise, the Battalion fields its first TROJAN SPIRIT II system. They eagerly anticipate testing the newly-acquired, split-based operations capability needed for the upcoming deployment to Egypt for the Bright Star exercise.

August-September 1995

As the Battalion and the G2 finalize the configuration of the Deployable Intelligence Support Element (DISE) for Bright Star, the C Company Commander moves out of the "Dust Bowl" at NTC to pit his versatile DS Company, tactically-tailored in support

of the Division's 3d (HAMMER) Brigade, against the redoubtable OPFOR. By the end of Rotation 95-11, the Company will note these triumphs for the Victory Division—

- Dedicated DS MI Company support to the Division's Cavalry Squadron available for the first time. Six of the OPFOR's eight divisional reconnaissance teams are located and reported to the Squadron Commander during the first battle, as well as accurate locations for three of the four OPFOR company battle positions.
- Directing the EC-130 COMPASS CALL electronic attack aircraft with devastating accuracy, the DS Company Commander jams the OPFOR Regiment's command net so effectively that the Regimental Commander cannot pass the command to "jump nets." OPFOR calls for fire are jammed so effectively that their Multiple Launch Rocket System (MLRS) "Rocket Boxes" in Brown and Debnam Passes are not fired. Meanwhile, the

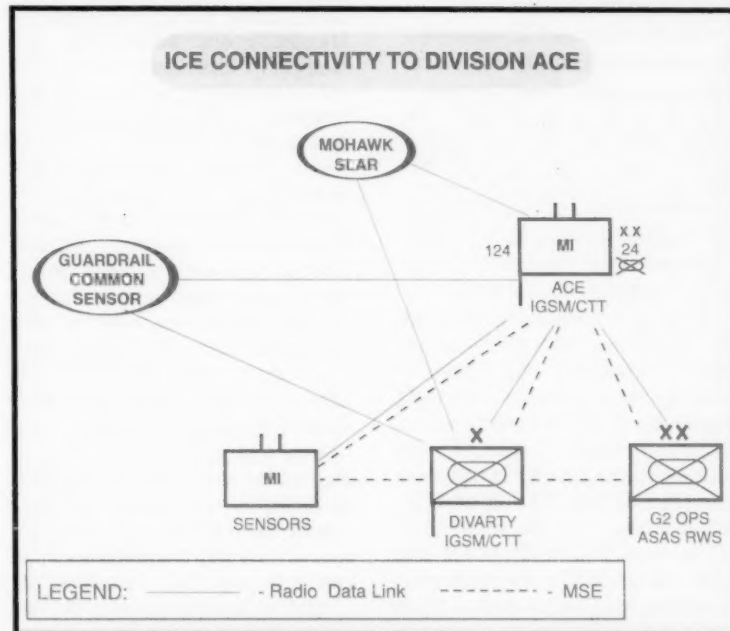


Figure 4. The Exercise Reporting Structure.



Photo provided by author

After-action review by the 124th MI Battalion at the NTC in 1994.

3rd Brigade attacks providing the Brigade Commander six-digit grids of 70 percent of the OPFOR's obstacles thirty-six hours before the Brigade's line of departure time, the DS MI Company satisfies the Brigade Commander's precise PIRs.

Having supervised C Company's redeployment from the NTC, the Battalion staff turns its attention to executing Battalion COMEX/LOGEX 95-05, conducted in support of the Division Artillery's Interdiction and Counterfire Exercise (ICE 95). The DIVARTY Commander's intent—

"The 24th DIVARTY, with associated sensors, supporting fire support agencies, and maneuver assets, conducts an interdiction and counterfire exercise to exercise the Force Field Artillery Headquarters' METL, strengthen sensor-to-shooter links, and validate and refine developed SOPs, TTPs, and planning factors."

While the Battalion gains additional training proficiency with its organic sensors, the greatest training strides come as the ACE integrates data from the Guardrail Common Sensor (GRCS) and Mohawk side-looking airborne radar (SLAR) into their operations, establishing datalinks into ASAS. CTTs deploy with the ACE and with the DIVARTY Headquarters, downlinking GRCS data, while the 224th MI Battalion's Improved Ground Station Modules (IGSMs)

deploy with the ACE and DIVARTY, exercising multiple target indicator reporting. Figure 4 shows the exercise reporting structure. Overall, it was an immensely satisfying exercise illustrating the potential of broadcast dissemination.

October 1995

Finally, in October 1995, the Battalion completes its reorganization into the new-series Mechanized Division MI Battalion MTOE, finishing a process started in September by activating the new A Company (DS) and reflagging Companies B, C, D, and the Headquarters and Operations Company. The doctrinal principles of split-based operations, tactical tailoring, and broadcast dissemination have resulted in a much more flexible and versatile unit (see Figure 1)—now tailored in garrison to match the Battalion's structure when it deploys for war. Among the many advantages of the new battalion structure, each of the DS Companies is now equivalent to the MI Ready Company organization detailed in Fort Stewart's deployment plan, **Fort Stewart Regulation 525-1**.

With reorganization completed, the 124th MI Battalion prepares its DISE for movement to Egypt, where the Division assumes the role of ARFOR Headquarters. Simultaneously, the Battalion deploys B Company (DS) to the National Training Center. By the end of the month, the Battalion

stretches from Cairo, Egypt, to Barstow, California, exemplifying all the principles of force projection IEW operations—driven by the requirements of thinking and intuitive combat commanders—in support of the Victory Division wherever it joins in battle.

A year in the life of an MI battalion assigned to a mechanized division whips past at a fast pace—in addition to events listed above, many other exciting training and contingency events occurred in FY95. In many ways, 1995 was a watershed year as MI moved to the forefront of force projection operations. When examined in retrospect, everything the Battalion did during the year was dedicated to exercising the principles of IEW in the Force Projection Army of the 21st century—providing one of the most exciting venues to learn these principles in the field, in the midst of America's greatest resource—soldiers. Those same soldiers, having learned doctrinal principles the tough way, by practicing them in the field, will carry these lessons-learned throughout their careers.

Lieutenant Colonel Kenneth H. Boll is currently Commander, 124th MI Battalion, 24th Infantry ID (M). Among his previous assignment highlights are: S2, 9th Infantry Division and 6th Cavalry Brigade (Air Combat), and Chief, Countermarctics Analysis Division, J2, U.S. Southern Command during Operation JUST CAUSE. Lieutenant Colonel Boll holds a bachelor of arts degree in History from the University of Texas, El Paso, and a master of science in Strategic Intelligence from the Defense Intelligence College in Washington, D.C. Readers can reach him at (912) 767-8222, DSN 870-8222, and via E-mail afzp-vmi-c@STEWART-emh3.army.mil.

Major Jeffrey S. Holachek currently serves as Chief, Analysis and Control Element, 124th MI Battalion, 24th ID (M). His previous assignments include service in the 103rd MI Battalion and as Commander, U.S. Army Special Security Detachment, Fort Meade, Maryland. Major Holachek is a graduate of Xavier University and holds advanced degrees from Johns Hopkins University and Colombia University. Readers can reach him at (912) 767-8500, DSN 870-8500, and via E-mail afzp-vmi-cmo@STEWARTemh3.army.mil.

CONCEPTS & DOCTRINE

The Intel XXI Concept II: The Operational Patterns

by Captain Neal J. Wegner

In the last issue, I introduced the new Intel XXI concept and discussed the 21st century intelligence force and how we will design, equip and train it to meet the demands of future operations and the needs of Force XXI commanders. It is very important that intelligence professionals understand how the Force XXI warfighter will conduct operations in the 21st century battlespace to meet these needs. Force XXI commanders will conduct operations through six operational patterns. These are neither phased nor sequential, but apply throughout the continuum of operations from planning to execution and redeployment. Intel XXI will focus on supporting these patterns, so understanding them is key.

Project the Force

The first operational pattern is project the force. Force projection involves the tactical tailoring of our mission, enemy, terrain and weather, troops available, and time (METT-T)-driven force packages and the conduct of split-based operations from the Continental United States anywhere in the world. One major consideration in Force XXI operations is the participation of national, joint, combined, operational (including special operations forces (SOF)), interagency, and multinational capabilities. Situational awareness provided early in the planning process will enable commanders to tailor their early-entry forces with the right mix of combat, combat support, and combat service support (CSS) assets. Intel XXI commanders and their supported

commanders must be ready to fully integrate and employ these critical assets. Intel XXI organizations and systems must be modular, scalable, and flexible to meet the highly complex and often dynamically changing demands of future force projection operations. Strategic, operational, and tactical agility will be essential characteristics of the Army's Intel XXI force.

Commanders in future force projection operations will have the capability to establish intelligence support bases (ISBs) while deploying tailored force packages into the theater of operations. The ISB, located in sanctuary, will provide intelligence to digitally linked deployed forces during all phases of the operation, including tailored intelligence products enroute, intelligence "overwatch" during initial deployment, and the ability to develop situational awareness and targets before the force arrives in theater. The ISB also will leverage and focus national, joint and multinational intelligence capabilities while the forward-deploying intelligence units focus on staging, getting established, and building up in the theater. Additionally, SOF in the area of operations must be considered since they can be a valuable source of intelligence for initial entry forces.

The early-entry Intel XXI force package may be as small as one person with a single-channel tactical satellite communications terminal and an All-Source Analysis System Remote Workstation (RWS). It also may be as large as an intelligence direct support company team or a task force with specialized augmentation from the Intelligence and

Security Command (INSCOM) or national agencies. It will have the capability to receive enroute updates while on board aircraft or ships. Since commanders may need to fight or operate immediately upon arrival, the deploying intelligence team needs capabilities to—

- ☐ Access in-theater joint and multinational capabilities.
- ☐ Support situational development and targeting.
- ☐ Conduct counterintelligence force protection operations.
- ☐ Perform limited command and control warfare (C²W).

Again, tailorability is the key to Intel XXI support to force projection operations.

INSCOM forces in the 21st century will play a vital role in force projection. Linkage to facilities such as the Regional Signal Intelligence (SIGINT) Operations Centers (RSOCs) and National Ground Intelligence Center (NGIC) will allow commanders to "ramp-up" quickly by taking advantage of their regionally focused intelligence databases, products, planning, and training resources. INSCOM's force projection brigades will provide complementary and frequently unique capabilities to reinforce deploying operational and tactical forces. In future operations it is clear that no one echelon and intelligence organization can do it all. It will take a "total force" team effort, operating a system of systems in a seamless architecture.

Protect the Force

The second pattern is Protect the Force. The Army of the future could be vulnerable at every echelon throughout all phases of

the operation to a wide range of threats from conventional fires and maneuver, to terrorists, and computer virus invasions or other sabotage. Force protection must therefore involve the development of embedded technologies and procedures to protect our command, control, communications, computers and intelligence (C⁴I) assets, the operational employment of physical protective measures, and C²W. Commanders of the future must be aware of the full range of potential threats, prioritize their protection requirements in terms of key assets, critical nodes, and essential elements of friendly information, and then be prepared to allocate resources accordingly.

In the area of force protection, Intel XXI will focus on conducting intelligence operations to assess friendly capabilities and vulnerabilities in relation to a thorough assessment of the adversary's attack and intelligence, reconnaissance, surveillance, and target acquisition (RSTA) capabilities.

Like a piston, information dominance moves up and down during operations

To provide commanders the information they need, the intelligence system will be able to dynamically portray how an adversary sees friendly forces so that cause-and-effect assessments can be made during planning and wargaming. Using reverse intelligence preparation of the battlefield (IPB) techniques, the commander can determine active and passive protection courses of action. Intelligence force protection activities will also focus on preventing surprise and conducting counter-reconnaissance and C²W to ensure U.S. forces achieve information dominance at the right time and place. Finally,

multidiscipline counterintelligence operations in support of force protection and operations security must be thoroughly integrated into all phases of the operation.

Gain Information Dominance

The third operational pattern is Gain Information Dominance. Information dominance is the delta between the understanding of information available to each of two opposing commanders. It is achieved through the execution of information operations including the—

- ☐ Conduct of C²W.
- ☐ Establishment of a robust, secure information system (C⁴I)
- ☐ Production of battle command information (including intelligence, friendly force and other relevant data) to enhance battlespace visualization and satisfy commander's critical information requirements (CCIR).

To achieve information dominance commanders must also protect their information systems, while destroying, degrading or de-coupling the adversary C⁴I and RSTA system, using a combination of lethal and non-lethal attack means. Like a piston, information dominance moves up and down during operations, but it must be optimized at the right time and place according to the commander's intentions.

Intel XXI will play a critical role in achieving information dominance. It is the essence of Intel XXI. Intelligence organizations will collect, analyze, present, and disseminate information about the weather, terrain, and enemy so that commanders can accurately visualize their battlespaces. IPB will focus on all operational considerations to include information operations. Meteorological data will be collected from various sources, disseminated through IMETS and the Army Battle Command Sys-

tem, and will support assessments of the environmental effects on future operations.

As they do with support to targeting, Intel XXI analysts will assess enemy C⁴I and RSTA capabilities and vulnerabilities in support of C²W target planning and execution. Intelligence operators will also continue to plan, coordinate and synchronize the integrated employment of electronic warfare including joint and multinational capabilities. In summary, Intel XXI will allow commanders to effectively mass the effects of both lethal and nonlethal means to gain information dominance and achieve decisive results.

Shape the Battlespace

The fourth operational pattern is Shape the Battlespace. Shaping the battlespace is the process whereby the commander sets the conditions for friendly success in decisive operations, including the employment of combined, joint, and multinational forces. To shape the battlespace, the commander must have an accurate, near-real-time continuous visualization of the battlespace relative to the desired end-state. The force must be able to accurately locate, identify, track and engage targets throughout the battlespace with a variety of lethal and non-lethal means. The commander and staff must wargame the various options and understand the impacts of both friendly and adversary actions, capabilities, and intentions. They must also assess the environmental factors of weather and terrain.

To shape the battlespace, force commanders require support by an intelligence architecture that can access deep collection assets, conduct C²W, and support the deep operations and targeting effort with dynamic, continuous and precise collection and battle damage assessment (BDA). Intel XXI must provide well-trained intelligence analysts and operators sup-

ported by efficient and highly mobile precision sensors, processors, decision aids, and communications. The Intel XXI unit must organize and equip to integrate the intelligence and RSTA feeds from a variety of organic, joint and multinational sensors. Finally, Intel XXI will include the capability to anticipate weather impacts on friendly and threat capabilities allowing commanders to exploit windows of opportunity influenced by the weather.

Decisive Operations

The fifth operational pattern is Decisive Operations. Decisive operations will require a highly responsive and accurate view of the battlespace to support coordinated, distributed and simultaneous operations designed to attack, disengage and re-attack. Rapid movement of friendly forces will improve survivability and achieve mass at critical places and times for short periods. Accurate BDA will be required to ensure successful completion of each phase before moving on to the next. Decisive operations thus demand the precise location and identification of numerous entities to include: fighting positions, combat vehicles, weapons, and obstacles. The density of such targets and

the level of resolution will increase, while time to react will decrease as formations close with one another. It must be capable of not only collecting but also processing, communicating, and disseminating intelligence on the move. Intelligence forces will provide commanders engaged in decisive operations with modular C² attack assets that support targeting and C²W.

Sustain the Force

The sixth operational pattern is Sustain the Force. Sustainment operations occur during all patterns of operations and their design must help commanders sustain their operating tempo while transitioning from one phase to another. An integrated combined arms effort will achieve the maintenance and protection of the flow of sustaining resources.

Intelligence operations in support of sustainment operations will be continuous, designed to avoid surprise and protect forces as they conduct sustainment operations. They will also employ systems that can be maintained, resupplied and re-deployed with the same speed and agility as their supported force. This will require an innovative approach to Intel XXI CSS to rapidly main-

tain and resupply geographically dispersed forces. Intelligence operations also must help the commander prepare for future operations. As combat operations decrease there may be an increase in unconventional activities, including terrorist and sabotage actions. The importance of human intelligence operations will increase during these periods. Intelligence elements must produce IPB products, situation development and targeting data, and develop collection requests and plans in anticipation of future operations.

Conclusion

As you can see, intelligence plays an important part in supporting the Force XXI warfighter. In the next article, I will discuss how the intelligence professional will provide this support by explaining the intelligence tasks which support the operational patterns.

Captain Wegner is currently a concepts action officer in Concepts Division, Directorate of Combat Developments, in the U.S. Army Intelligence Center and Fort Huachuca. Readers can contact him at (520) 538-2257, DSN 879-2257, and via PROFS/E-mail at wegnem%hua1@hua.chuca-emh11.army.mil.

Future Changes in Military Intelligence (MI) Doctrine

by James J. Adams

The Doctrine Literature Branch (DLB) at Fort Huachuca is revising MI doctrine, and the tactics, techniques, and procedures (TTP) manuals. Our focus is to provide the guidance needed to execute the MI battlefield operating system's functions, while reducing the cost of fielding our doctrinal references. There are two initiatives we will execute in order to reach these goals. One is to revise and publish seven MI manuals and the other is to reduce the number of manuals in the Army inventory.

Our first initiative, however, is to re-energize our doctrinal lit-

erature program. We will revise five organizational manuals and two procedures manuals. Our goal is to ready these manuals for publication by 31 May 1997:

Organizational

- ☐ FM 34-10, Division Intelligence and Electronic Warfare (IEW) Operations.
- ☐ FM 34-25, Corps Intelligence and Electronic Warfare Operations.
- ☐ FM 34-35, Armored Cavalry Regiment and Separate Brigade IEW Operations.
- ☐ FM 34-40, Command and Control Warfare.
- ☐ FM 34-80, Brigade and Battalion IEW Operations.

TTP

- ☐ FM 34-3, Intelligence Analysis and Synthesis.
- ☐ FM 34-55, Imagery Intelligence.

Our second initiative will be to reduce the total number of MI manuals from 59 to 28 by fiscal year 2000. Our goal is 28, but the total may fluctuate as we proceed.

We have compiled a list of reference library doctrinal manuals we feel are key to successful operations in the S2 shop. DLB welcomes your comments at (520) 538-0971, DSN 879-0971, or E-mail adamsj@huachuca-emh98.army.mil.

Brigade/Battalion S2 Professional Library

FM 34-1	IEW Ops	FM 3-101	Mobility
FM 34-25	Corps IEW Ops	FM 5-102	Countermobility
FM 34-1-1	IEW Systems	FM 5-103	Survivability
FM 34-36	SOF IEW Ops	FM 7-7	Mech Inf Plt & Sqd
FM 34-2	Coll Mgt & Syn	FM 7-7J	Mech Inf Plt & Sqd (BRADLEY) ¹
FM 34-37	EAC IEW Ops	FM 7-6	Inf Rifle Plt & Sqd
FM 34-2-1	TTP for RISTA	FM 7-10	Inf Rifle Co
FM 34-40	EW Ops series	FM 7-20	Inf Rifle Bn
FM 34-3	Intel Anal & Syn	FM 7-70	Lt Inf Plt & Sqd
FM 34-52	Intel Interrogation	FM 7-71	Lt Inf Co
FM 34-6	HUMINT & CI	FM 7-92	Inf Recon Plt & Sqd (A, AA, LI)
FM 34-54	Tech Intel	FM 7-93	LRSU Ops
FM 34-7	IEW Spt to LIC	FM 7-98	Ops in a Low Intensity Conflict
TC 34-55	IMINT	FM 10-14-2	Guide for Bn S4
FM 34-8	Cbt Cdr's Handbook for Intel	FM 10-14-3	Surveying Officer's Guide
FM 34-25-6	EPDS/IPDS	FM 11-30	MSE Comms in Corps/Div
FM 34-8-1	MI Officer's Handbook	FM 11-32	Combat Net Radio (CNR) Ops
FM 34-25-7	SEMA Survivability	FM 11-37	MSE Primer for Small-Unit Leaders
FM 34-8-2	G2/S2 Referencebook	FM 17-15	Tank Plt
FM 34-10	Div IEW Ops	FM 17-95	Cav Ops
FM 34-10-16	GBCS	FM 17-95-10	Armd Cav Rgmt & Sqdn
FM 34-25-1	Joint STARS	FM 17-97	Rgmt Armd Cav Trp
FM 34-25-2	UAV Ops	FM 17-98-1	Sct Plt
FM 34-25-3	ASAS/ACE	FM 19-30	Physical Security
FM 34-35	ACR/SB IEW Ops	FM 19-40	EPW, Civ Internees & Detained Persons
FM 34-60	CI	FM 21-26	Map Reading & Land Navigation
FM 34-80	Bde/Bn IEW Ops	FM 21-31	Topo Symbols
FM 34-81	Weather Spt to Army Tac Ops	FM 33-1	Psychological Ops
FM 34-81-1	Weather Effects Handbook	FM 41-10	Civil Affairs Ops
FM 34-130	IPB	FM 90-2	Battlefield Deception
FM 100-2-1,2,3	Soviet Army ops, tactics, trps, org, & equip (currently replaced by Draft TRADOC PAM 350-11, 12, 13, 14, 15, 16 OPFOR models)	FM 90-2A	Electronic Deception
FM 100-5	Ops	FM 90-7	Combined Arms Obstacle Integration
FM 100-6	Information Ops	TC 12-17	Adjutant's Call/S1 Handbook
FM 100-20	Mil Ops in Low Intensity Conflict		
FM 100-23	Peace Ops		
FM 101-5-1	Operational Terms & Symbols		
FM 101-10-1/1	Staff Officer's FM-Org, Tech, Log Data Vol 1		
FM 101-10-1/2	Vol 2		
FM 3-4	NBC Protection		
FM 3-5	NBC Decontamination		
FM 3-50	Smoke Ops		
FM 5-34	Engr Field Data		
FM 5-36	Route Recon & Classification		
FM 5-100	Engr Cbt Ops		

Joint Pubs

JP 1	Joint Warfare
JP 1-02	Dictionary
JP 2-0	Joint Intel
JP 2-01	Joint Intel Spt to Ops
JP 3-0	Joint Ops
JP 3-07	Mil Ops Other Than War

Editor's Note: Although not all-inclusive, this list should provide the prospective Bde/Bn S2 a well-rounded reference library for day-to-day intelligence operations. More specific manuals should be added, depending on the mission of the supported Bde/Bn (for example, Air Assault, Airborne, Light, Heavy, etc.).

MI CORPS HALL OF FAME

The Military Intelligence (MI) Corps honored five professionals during the Hall of Fame (HOF) activities 27 and 28 June 1996 and dedicated one building.

This year's theme for HOF was Force XXI—

- ☐ Mission.
- ☐ Vision.
- ☐ People.

The events began with the Office of the Chief of Military Intelligence (OCMI)-sponsored family golf tournament and various tours of the local area. The day's

events ended at the Commanding General's reception, highlighted by the welcome address by Major General Charles W. Thomas. The June 28 activities began with a breakfast at the MI Museum, sponsored by the MI Corps Association (MICA). After the induction ceremony honoring this year's HOF selectees, held at Alvarado Hall, was a luncheon at the Lakeside Officers' and Civilians' Club. After lunch, the Directorate of Operations, Training, and Doctrine/G3 Operations building was dedicated

in honor of the late Colonel Robert J. Kelly. The 1996 Hall of Fame activities culminated with the 34th annual MI Ball sponsored by the 111th MI Brigade.

The 1996 HOF inductees were Specialist Harry M. Akune, Colonel John H. Black, Colonel James H.P. Kelsey, Colonel Kelly, and Major Kan Tagami. The MI Corps created the Hall of Fame in 1988 to commemorate the MI Corps soldiers and civilians who have dedicated their lives and careers to the defense of our country.

PROPONENT NOTES

Enlisted Force Structure

The Vice Chief of Staff, Army has directed that all Branch Proponents correct overgrading of the enlisted force. In order to meet this requirement, the MI Proponent Office (OCMI) will conduct a complete review of its enlisted structure. The review, which began in May, is expected to be completed by August 1996. The field should see the impact of any resulting changes beginning in FY 98.

(POC is SGM York or SFC Taylor, ATZS-MI, DSN 821-1174, email yorpk%hua1@huachuca-emh11.army.mil)

MOS 98D and 98H Merger

The Military Occupational Specialty (MOS) 98D and 98H change packets have been forwarded to the Total Army Personnel Command (PERSCOM). The process that will merge

MOS 98D into MOS 98H has begun. Once PERSCOM analyzes the proposal, the packet will be staffed to MACOMs for review and approval.

The proposed implementation date is 1 October 1997. On that date, all soldiers holding MOS 98D will be converted to MOS 98H and further identified with the transition additional skill identifier (ASI) Y2. The title for MOS 98H will change to Morse/Non-Morse Communications Interceptor/Locator to reflect the increased mission responsibilities. All transition training will be conducted at the unit with minimal impact on the unit's mission. The Intelligence Center will assist units during this transition by producing exportable training materials.

(POC is MSG Sames, ATZS-MI, DSN 821-1450, email sames@pentagon-hqdadss.army.mil)

MOS 98K Update

Recent technology and mission changes have required revisions to MOS 98K. The revisions were established during Signals Intelligence (SIGINT) Training Advisory Council (STAC) meetings, which was held September 1995. The current title Non-Morse Interceptor/Analyst no longer accurately describes the 98K MOS mission. A recommendation has been forwarded to PERSCOM to change the MOS title to Signals Collection/Identification Analyst. The proposed effective date for the title change is 1 October 1997.

Training for 98K has changed and the new training was effective 1 August 1994. Students no longer attend the 231-F30, Basic Morse Course.

(POC is MSG Sames, ATZS-MI, DSN 821-1450, email sames@pentagon-hqdadss.army.mil)

Change to MOS 97L (Translator/Interpreter) Qualifications

The requirement for a qualifying score on the Defense Language Aptitude Battery (DLAB) has been deleted from AR 611-201. Because of the requirement for a comprehension rating of L2-R2 in a foreign language, the need for the DLAB is unnecessary. This change was published in the May 96 end-of-cycle Notification of Future Change. Implementation guidance will be provided in the next update of the DA Circular 611 series.

(POC is Ms. Charlotte Borghardt, ATZS-MI, DSN 821-1188, E-mail borghardt@pentagon-hqdadss.army.mil)

Warrant Officer Accessions

All Military Intelligence Warrant Officer Specialties are currently open for procurement. We are specifically looking for applicants for MOS 350B All Source Intelligence Technician and 351B Counterintelligence Technician. We try to maintain a ratio of three applications for each slot available in order to insure the very best are accepted into the program. If you, as a supervisor, have an outstanding NCO who may be interested in applying, we encourage you to present that as a career option to those soldiers. We continue to have openings for MOS 351E Interrogation Technician with at least a 2/2/2 language profi-

ciency in Korean, Persian-Farsi and Arabic.

The United States Army Recruiting Command Warrant Officer Application Checklist and Sample Packet, Volume III, DEC 95 outlines the procedures to submit an application. DA Circular 601-94-1, 3 January 1994, Warrant Officer Procurement Program, lists all of the necessary prerequisites for each individual MOS. A new DA Circular is scheduled to be published this summer. Until it is released, the requirements in DA Circular 601-94-1 remain valid.

(POC is CW5 Williams, OCMI WO Professional Development Manager, ATZS-MI, DSN 821-1183, email williamr@pentagon-hqdadss.army.mil)

Utilization of Warrant Officers

As our MI Warrant Officers cycle through the Warrant Officer Advance Course, we are hearing with increasing frequency that they are being slotted in commissioned officer positions. AR 611-112, Manual of Warrant Officer Military Occupational Specialties states "Warrant Officers will not be utilized in a commissioned officer (except under the provisions of paragraph 1-7d(2) and (3), above) or noncommissioned officer position." The referenced paragraph states that prior to assigning a warrant officer to a position not classified within the individual's primary or additional MOS you must have

HQDA concurrence, and that concurrence must be a permanent part of the individual's 201 file. AR 623-105 further states that a remark reflecting the concurrence will be entered on each OER pertaining to the individual during the time assigned.

Commanders need the latitude to organize their unit to best accomplish the mission. This means there are times when using a warrant officer in a commissioned officer slot may be necessary. Should that occasion arise, refer to the applicable regulations to ensure your warrant officer's future promotions and assignments are not put in jeopardy.

(POC is CW5 Williams, OCMI WO Professional Development Manager, ATZS-MI, DSN 821-1183, email williamr@pentagon-hqdadss.army.mil)

ASI Changes

The title for ASI Course 2T, ETUT/TUT/THMT TENCAP Operations, was changed based on a 9 November 1994 Course Administrative Data (CAD) request. The new title for ASI 2T is TENCAP Data Analyst. Units forwarding requests to send personnel to the ASI 2T Course are requested to use the new title.

(POC is MSG Sames, ATZS-MI, DSN 821-1450 and E-mail sames@pentagon-hqdadss.army.mil)

Introduction to Information Warfare

The National Military Intelligence College at Bolling Air Force Base offers this one-week course for all commissioned officers O3 and higher and civilians GS-11 and above. The seminars focus on many basic aspects of information warfare: revolution in military affairs (RMA), information technology, psychological operations, deception, media impact, offense, defense, Service and Command roles and initiatives, strategy, counterintelligence, legal and civil implications, and Allied perspectives.

There are limited Army billets for the course. The next class is from 16 through 20 September 1996; the college will offer three classes in fiscal year 1997. Clearance requirements are top secret clearance with sensitive compartmented information access. For more information contact Mr. D. H. Dearth, Course Director, at (202) 373-3290, DSN 428-3290, or via E-mail at dhdearth@aol.com. Interested parties may telephone the Enrollment Officer, Ms. Pat Lanzara, at (202) 373-3290 or DSN 428-2797.

RESERVE COMPONENT

Intelligence Support for the Enhanced Brigade

Three years ago, we began the design process for the MI Company of the Enhanced Brigades. There were several guiding tenets for this process: capabilities, end strength, affordability, sustainability, and doctrinal soundness. One of the decisions made was to use proven organizations and doctrine.

FM 71-3, The Armored and Mechanized Infantry Brigade, states that—

Separate brigades normally conduct operations under corps command, and are organized to provide their own support. The enhanced brigades of the Army National Guard are separate brigades. Their only enhancement is in an authorized over structure in personnel.

The doctrinal reference for the Enhanced Brigade MI company is **FM 34-35, The MI Company, ACR and Separate Brigade.** This field manual provides a good starting point for MI company operations and organizations. The organization of the Enhanced Brigade MI Company Analysis and Control Element (ACE) is under development.

With the fielding of the All-Source Analysis System (ASAS) to the Enhanced Brigades, the current **FM 34-35** becomes less relevant. In light of this, a revision of **FM 34-35** has been scheduled for completion by the third quarter of fiscal year 1997 (FY 97). The revised FM will address the question of "how to fight" the ACE of the Enhanced Brigade. However, this FM alone

does not provide a total solution for collective training of the Enhanced Brigade's MI battlefield operating system. To provide a total solution, the U. S. Army Intelligence Center and Fort Huachuca (USAIC&FH) is developing a training support package (TSP) which will provide a complete set of materials that allow a unit to conduct collective training of their entire organization. The TSP replaces the Mission Training Plan and Army Readiness Training Evaluation Program and other such materials currently in use. The TSP for the Separate Brigade and ACR MI company will be available by late FY 97. The Reserve Forces Office, USAIC&FH, is planning a series of Reserve Component Collective Training Workshops to bring together —

- ☐ Select Guard and Reserve unit level personnel.
- ☐ Doctrine writers and trainers from the USAIC&FH.
- ☐ Title XI trainers.
- ☐ CTC Intelligence.
- ☐ Observer/Controllers.
- ☐ National Guard Bureau.
- ☐ The US Army Reserve Command will also be present.

The mission of these RC Collective Training Workshops will be develop a concept and execution plan for collective MI training in the Reserve Components that supports both Intelligence XXI and Force XXI. Based on the results of the initial workshop, additional sessions will follow over the next two years.

National Guard G2/S2 Training Workshop

The annual G-2/S-2 Trainers Workshop has been tentatively scheduled for 17 through 21 October 1996 at the Sierra Suites in Sierra Vista, Arizona. The format will be similar to that of previous years. The focus for this year will be on ASAS for the National Guard. We strongly encourage attendance by Title 11 MI personnel, Readiness Group MI trainers, and United States Army Reserve, Army Reserve Intelligence Support Centers, Reserve Forces Intelligence Schools, and other trainers.

Doctrinal Questions. RC organizations with MI-related questions should not hesitate to contact the Reserve Forces Office, USAIC&FH. Though we cannot provide publications, we can provide extracts and other material on a case by case basis. Units can locate and download doctrinal material and lesson plans from the 326th MI Battalion page and others under the USAIC&FH Home Page on the Internet (<http://huachuca-usaic.army.mil>). The doctrine page of the Fort Leavenworth Command and General Staff College Internet home page posts current brigade and division doctrine.

Colonel John Craig is the USAR point of contact (POC) and Major Steve Ponder is the ARNG POC. Readers can reach them at (520) 533-1176/77, DSN 821-1176/77 and FAX 821-1762. Colonel Craig's E-mail address is craig%hual@huachuca-emh11.army.mil Major Ponder's E-mail address is ponders@aol.com

TROJAN SPIRIT

(Continued from page 20)

time, heavy divisions will replace their GBCS-Ls with GBCS-Hs. Light divisions will then receive these redistributed GBCS-Ls. Fielding will continue until all divisions have the full complement of IEWCS systems as outlined by the current basis-of-issue plan (BOIP). The current BOIP provides four AQFs per division plus one of the following: four GBCS-L systems per light division, four GBCS-Hs systems per Armored Cavalry Regiment (ACR), or six

GBCS-Hs per heavy division. Fielding of the IEWCS systems should be complete in 2010.

Lieutenant Colonel Gary Parker is currently the Deputy TSM GBCS, located at the U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH), Fort Huachuca, Arizona. He has served in numerous command, operational intelligence, and research and development assignments. His field experience includes deployment with a TROJAN SPIRIT system to Somalia during Operation RESTORE HOPE. He has a bachelor of arts degree in Aerospace Engineering from the University of Colorado and three master's degrees (from the Na-

val Postgraduate School in Systems Engineering for Electronic Warfare and in Physics, and from Boston University in Business Administration). Readers can contact Lieutenant Colonel Parker at (520)533-5850/5579, DSN 821-5850/5579, and via PROFS/E-mail at parkerg%hua1@huachuca-emh11.army.mil.

Sergeant First Class Dan Stephens is the Noncommissioned Officer in Charge, TSM Ground-Based Common Sensor. He has served in many tactical SIGINT units. His experience includes an assignment as the Platoon Sergeant of a QUICKFIX platoon which participated in Operations DESERT SHIELD and DESERT STORM. You can contact him at (520) 533-1760/2429 and DSN 821-1760/2429.

Warfighter

(Continued from page 24)

currently support operations in Bosnia. The future IMETS capabilities will undergo further testing in the 1997 Brigade Task Force XXI experiment.

AMSS

The commander who can best measure and exploit weather conditions has a decided advantage over his opponent. The AMSS is the initial development model of an automated weather-sensing system for tactical use. It will measure weather and environmental elements, record them, provide local read-out, and transmit the data to the nearest IMETS. Data measured will consist of—

- ☐ Wind speed and direction.
- ☐ Temperature.
- ☐ Humidity.
- ☐ Barometric pressure.
- ☐ Rainfall rate and amount.
- ☐ Soil temperature and moisture.
- ☐ Solar radiation.
- ☐ Illumination.
- ☐ When feasible, cloud-base height and visibility.

Brigade and battalion S2s will operate the AMSS. It will be lightweight, man-portable, and either vehicle-mounted or hand-emplaced at key terrain points. Auto-

mated measurements, collected hourly or more frequently, will go to S2s for their use, and simultaneously to IMETS for integration into the weather database. AMSS will also send these tactical observations to theater forecast centers to enhance long-range and general area forecasts for the area of interest. Although the materiel development document (the Operational Requirements Document) for AMSS gained approval in 1993, the system is not currently funded.

Conclusion

Tomorrow's weather support will feature the latest technology in small, powerful computers with advanced forecasting models, decision aids tailored to the situation, and timely automated outputs in the format most useful to the warfighter. The focus of future Army weather support will be upon the production and visualization of information and decision aids that allow the assessment of

environmental factors' impacts on tactical operations. This will allow plans adjustment to minimize force vulnerabilities, increase relative combat power, and exploit enemy limitations caused by the weather. IMETS will allow commanders to "own the weather" by enabling them to anticipate impending impacts of weather on friendly and threat capabilities for exploiting windows of opportunity created by the weather.

Mr. Richard J. Szymber is a meteorologist with the Battlefield Environment Directorate of the US Army Research Laboratory (ARL). He holds a bachelor's degree in Geography from Arizona State University and a master of science degree in Atmospheric Sciences from the University of Arizona. He is involved in research in satellite meteorology in addition to developing and promoting "Owning the Weather" (OTW) concepts and programs. Mr. Szymber was permanently assigned to Fort Huachuca in June, 1995, to serve as ARL's OTW liaison to the Intelligence Center and help integrate OTW into Army operations and programs. You can reach him at (520) 538-6493/72, DSN 879-6493/72, and via E-mail at rszymber@arl.mil.

41st Infantry Brigade (Enhanced): Looking for a Variety of MI MOSs

The Oregon Army National Guard's 41st Separate Infantry Brigade, recently designated an Enhanced Brigade, is seeking MI military occupational specialties. We need motivated soldiers for positions in our new MI Company. The Oregon Army National Guard also has a program to assist soldiers in finding civilian employment. Come to Oregon and be a "Jungleer." Call the 41st Infantry Brigade strength management office today—Toll Free 1-800-255-2764 or DSN 638-5110.

229th Military Intelligence Battalion



Oriental blue and silver gray are the colors traditionally associated with the Military Intelligence Branch. The griffin, noted for keen eyesight, symbolizes surveillance. The two griffins back to back represent vigilance; they also suggest the unit's global orientation. The wavy pale lines refer to the Panama Canal, commemorating the unit's decoration in battle service in Panama. The unit motto is "Strength from Intelligence."

The mission of the 229th Military Intelligence (MI) Battalion is to support the academic mission of the Defense Language Institute Foreign Language Center (DLIFLC), to execute common military training, to conduct Training and Doctrine (TRADOC)-mandated soldierization, and to provide operational, security, administrative and logistical support to assigned personnel. The battalion is organized into an HHC and six student companies. Companies A, B, C, D and F are responsible for implementing the high profile soldierization program for initial entry trainees. Echo Company is responsible for providing command, administration and supply support to student personnel in the ranks of Staff Sergeant

promotable and above. It conducts professional development training for junior grade officers and works with the Foreign Area Office to enhance Army Foreign Area Officer training.

The lineage of the 229th MI Battalion derives from the 29th MI Battalion. On 1 April 1985, the 29th MI Battalion (CEWI) was constituted in the Regular Army and activated in Panama. It was subordinated to the 193rd Infantry Brigade, whose primary role was defense of the Panama Canal. The battalion was composed of a mixture of SIGINT, HUMINT and ground surveillance assets. In June 1986, the battalion was placed in a reinforcing role to the 470th MI Brigade, Intelligence and Security Command (INSCOM), coming under the brigade's operational control. The move strengthened the management of Army intelligence assets in the theater.

The battalion participated in Operation JUST CAUSE in 1988-1989. It was subsequently awarded the Army Superior Unit Award for providing the timely and accurate intelligence required to effectively formulate and implement contingency plans, policies and operations critical to national security and United States interests in the strategically important Latin American region.

On 16 October 1990, the battalion was resubordinated to the 470th MI Brigade, INSCOM. On 17 October 1991, the unit was inactivated. On 7 December 1995, the 29th MI Battalion (CEWI) was redesignated as the 229th MI Battalion. On 15 March 1996, the U.S. Army Troop Command, DLIFLC was redesignated as the 229th MI Battalion.

The 229th Military Intelligence Battalion is one of the largest battalions in TRADOC. More than half of all the students at the DLIFLC are assigned to the 229th MI Battalion. On average, 1300 Army soldiers study one of 24 languages at any given time during the year. Numerous members of the battalion are called on each year to provide temporary language related contingency support around the world. Recent actions have seen battalion members in Bosnia, Iraq, Thailand, Russia, Morocco, Germany, Panama, Korea, Saudi Arabia and afloat off the coast of Mexico. Additionally, members of the battalion have supported domestic disaster related deployments. The cadre of the battalion is fully committed to its mission of training combat-ready "soldier-linguists."

SOLDIERS FIRST!

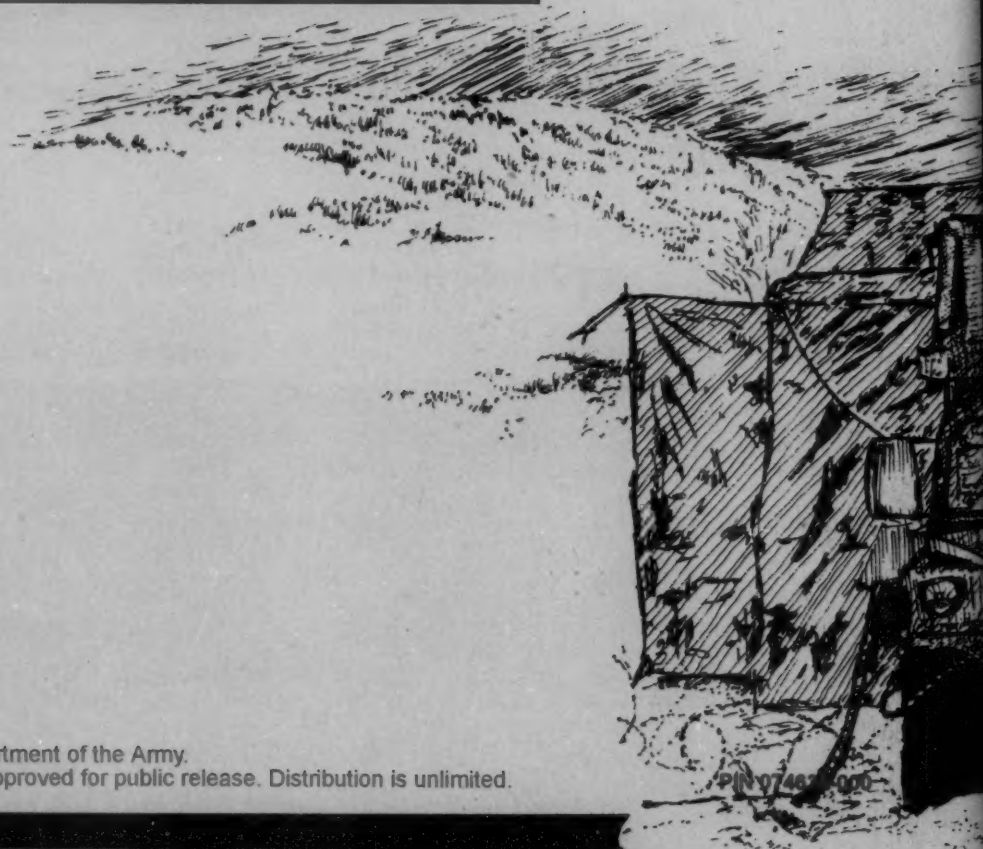
Commander
U.S. Army Intelligence Center & Fort Huachuca
ATTN: ATZS-TDL-B (12)
Fort Huachuca, AZ 85613-6000

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Eyes in the Sky

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